

Exhibit A

Stephen M. Factor, MD, FCAP, FACC

PROFESSOR OF PATHOLOGY & MEDICINE

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October 9, 2012

Nils B. (Burt) Snell, Esq.
Butler, Snow, O'Mara
Stevens & Cannada, PLLC
Suite 400
500 Office Center Drive
Fort Washington, PA 19034

Re: Linda Gross

Dear Mr. Snell

I am the Chairman of the Department of Pathology at Jacobi Medical Center. I am licensed to practice medicine in the State of New York and I am also a Licensed Laboratory Director by the State of New York. I am certified by the American Board of Pathology in anatomic and clinical pathology. I have academic appointments in the Department of Pathology and the Department of Medicine (Division of Cardiology) at the Albert Einstein College of Medicine, Bronx, N.Y., where I serve as a fully tenured professor. I am a Fellow of the College of American Pathology and the American College of Cardiology. Additional information regarding my training, employment history, qualifications and publications are detailed in my curriculum vitae, which is attached.

I have reviewed pathological materials as set forth below and also attached is a list of materials that I have reviewed in this matter. The following is a description and analysis of the pathological materials pertaining to Mrs. Linda Gross and my opinions in this matter.

Linda Gross Pathology Materials:

NMHC (5/22/07), N07-7921

Rectovaginal mass (slide marked with ink dots)

Fibrous stroma, focally with vaginal mucosa. Multiple empty spaces consistent with mesh fibers. Virtually no inflammatory reaction (very mild focal lymphocytic inflammation) in areas of mesh. Focal hemosiderin (consistent with prior hemorrhage). Multiple lakes of foamy and proteinaceous exudate. Focal vessels with fibromuscular

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sclerosis. Some residual fibers are refractile and bi-refrangent (dots around vessels and nerves).

Mayo Clinic (10/07), CR07-8397

Left posterior vagina (A1-2); Right posterior vagina (B1); (tissues with ink dots)

Fibrous and focal adipose tissue with focal mesh fiber spaces; some residual refractile material. Variable inflammation with some fibers showing no significant inflammatory reaction, and focally other groups of fibers with lymphocytic and multinucleated giant cell (MNGC) reaction. Multiple nerve fibers and occasional ganglia in fibrous tissue; hemosiderin pigment (dots around nerves and ganglia).

Mayo Clinic (1/08), CR08-678

Large bowel biopsy (A1-2); Upper posterior vagina (B1; mesh gross); ischial spine (C1; mesh gross)

A1-2: Large bowel biopsy: fat with remote necrosis (no intestine)

B1: Upper posterior vagina: Fibrous stroma; fibromuscular vascular sclerosis; blood vessel (vein) with remote thrombosis and hemosiderin; stroma with insignificant inflammation; multiple nerves and ganglia in fibrous tissue (vessels are not damaged or collapsed – they are sclerotic with focal lumen stenosis, not associated with ischemia).

C1: Ischial spine mesh: Mesh was gross only. Fibroadipose tissue in fibrous stroma with hemosiderin pigment and lymphocytic inflammation. Several granulomata (most likely foreign-body-type). Multiple nerve fibers with focal degeneration (one nerve bundle with changes consistent with neuroma). One vessel with hyalinization and multiple MNGC. Dots around nerves and hemosiderin.

SJHMC 6/09, S09-3382

Left ischial spine

Fragments of bone and fibrous tissue (periosteum) with focal calcification.

SJHMC 9/09, S09-5269

Soft tissue left buttock

Multiple fragments of fibrous tissue with focal purulent inflammation and granulation tissue consistent with abscess

SJHMC 10/09, S09-6422

Left buttock

1A, 2A: Fibrous and focal skeletal muscle tissue with chronic inflammation and maturing granulation tissue; granulation tissue is consistent with wall of fistula tract.

1B: Fibroadipose and skeletal muscle tissue with adjacent fibrous stroma, chronic inflammation, focal suture material with inflammation, and cautery (thermal) artifact. Dot of hemorrhagic fibrous stroma.

SJHMC 3/11, S11-1706 1A-C

Fallopian tubes

Fallopian tubes with small leiomyoma in paratubal tissue of one tube.

SJHMC 6/16/11, S11-3922 1A, 3A, 4A-B

Mesh and retropubic mass

1A: Retropubic mass: small fragment of cauterized blood vessel.

2A: Mesh fiber: Grossly described as 2 strands of hair-like material

3A: Luteinized ovarian cyst.

4A-B: Small fragments of ovary with corpora albicans and follicular cysts

Defense Slides:

N07-7921 (1 re-cut and 1 blank): similar to Plaintiff's slide

S01-1009 (3 re-cuts and 3 blanks)

A1: Cervix and endocervix; stroma with multiple sclerotic blood vessels

B1: Endomyometrium with weakly proliferative endometrium and chronic endometritis

C1: Endomyometrium with disordered weakly proliferative endometrium with chronic endometritis

S03-878 (1 re-cut and 1 blank)

Gallbladder with chronic cholecystitis

S10-1768 (1 re-cut and 1 blank)

Anal hemorrhoids

Mayo Clinic S07-8397

Left A1-2; Right B1

A1-2: Many nerves in fat and normal stroma without surrounding scar tissue. Smaller branches of nerves associated with fibrous tissue secondary to fat necrosis. Largest myelinated nerve is in fat and stroma. Most nerve fibers have no or minimal inflammation. Many blood vessels including artery are sclerotic with intimal/medial fibromuscular hypertrophy and hyperplasia; some in scar tissue, others in fat and stroma.

B1: Large sinuous nerve/ganglion in fibrous tissue associated with fat that has undergone fibrosis (likely due to fat necrosis). No mesh fibers are adjacent. Scar tissue with hemosiderin associated with entrapment of nerve. Mesh fibers at edge of tissue with surrounding fibrous tissue and minimal to no inflammation.

Conclusions:

The tissue response to PROLIFT Ethicon Mesh is not unusual or unique. It is similar to the response secondary to implantation of all foreign materials used for tissue support including sutures (mono- and polyfilament), Dacron, PTFE, and bio-materials that I have studied. Foreign bodies, and specifically mesh of all types and pore size, elicit fibrosis with ingrowth of type I collagen between the mesh pores in order to incorporate the mesh into the tissue for biological support (and in the case of vascular grafts, to prevent blood vessel leakage). Fibrosis, regardless of whether it is secondary to traumatic or iatrogenic injury, or a response to tissue necrosis or damage, elicits a chronic inflammatory response in association with the maturation of the collagen fibers. The development of collagen, including that secondary to the use of mesh, leads initially to granulation tissue (capillaries and fibroblasts, with deposition of pro-collagen, immature collagen (type III), and finally mature type I collagen over time. This process of collagen being secreted by fibroblasts and maturing is always associated with inflammation. During the granulation tissue phase there are PMNs and mononuclear cells; as granulation tissue evolves into fibrosis and neo-vasculature, the inflammatory component consists of mononuclear cells (lymphocytes, monocytes, plasma cells, and variable eosinophils). If the fibrosis develops in response to a foreign body, including mesh implantation, then the inflammatory response includes reactive macrophages, and MNGC (with both derived from monocytes). If foreign bodies are present, the inflammatory response is chronic and persistent. It is also important, when evaluating tissue fibrosis and inflammation associated with foreign material, to recognize that patient responses are variable and unpredictable. For unknown reasons, some patients may have a much more intense response than others, even when using similar materials and surgical techniques.

Surgery, *per se*, regardless of whether foreign material is used (including sutures) will lead to tissue damage with necrosis of connective tissue and fat. There is always some degree of associated damage to blood vessels, and tissue nerve bundles, leading to entrapment. These responses also are not unique to mesh. Ms. Gross had abundant evidence of prior fat necrosis with fibrous tissue replacement of fat, and multiple areas of hemosiderin-pigment deposition due to the breakdown of red blood cells secondary to surgical hemorrhage. These changes are induced by surgery, and have nothing to do with mesh. They were present in areas of tissue sampling in which mesh fibers were not present.

In both N07-7921 and CR07-8397, there was variable inflammation ranging from none to mild lymphocytic, to areas with lymphocytes and MNGC. This hardly reaches the level of "...a severe degree of chronic inflammation that has resulted in the deposition of dense fibrous scar tissue, in addition to damaging blood vessels and nerves." Any scar tissue following surgery potentially can damage blood vessels and entrap nerves, whether mesh is used or not. There is no objective scientific evidence that blood vessels were affected and/or damaged by mesh emplacement. In fact, in S01-1009 (uterus and cervix), well before mesh was employed, Ms. Gross had evidence of blood vessels in her cervix with fibromuscular hypertrophy and hyperplasia (vascular sclerosis), including changes

similar to those identified by Dr. Welch on slides marked with dots. The sclerotic vessels in the cervix also occurred without any surgery, indicative of common findings in women's gynecologic tracts. Ms. Gross also had evidence of chronic endometritis in the uterus in this specimen, possibly indicating that she had or was susceptible to chronic inflammation in her pelvic organs. Furthermore, although there was no biopsy, she was described as having hemorrhagic and interstitial cystitis 5 years later.

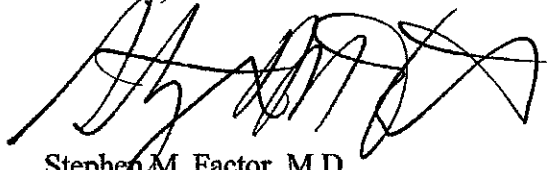
Dr. Welch makes much of the entrapment of nerves, and ascribes it to the mesh. As noted, any time there is surgical manipulation of tissue, there is a potential for scar formation, and nerve entrapment or direct damage to nerves. Only one nerve in all of these specimens had changes consistent with a neuroma, most likely secondary to surgical trauma. However, this neuroma was in tissue C08-678 C1, which did not have mesh in the adjacent stroma. Entrapment of nerves can occur due to fibrous tissue developing following fat necrosis, tissue hemorrhage, and surgical incisions, all of which were present or had occurred in Ms. Gross. There is also absolutely no way to ascribe subjective symptoms of pain to particular nerves surrounded by fibrous tissue. Pain can be associated with a neuroma (of which there was only one), and may occur with inflammation of the neural tissue (which was not observed). Similarly, sclerotic changes of blood vessels are not equivalent to ischemia, for which there was no evidence in her tissues. There are abundant blood vessels in vaginal and pelvic tissues, and sclerosis of some vessels does not necessarily lead to tissue ischemia.

As a final point, the abscess and buttock fistula that Ms. Gross developed is absolutely not unique to the mesh used in her repair. Any foreign material, any obstruction to normal drainage, surgical and non-surgical trauma, and infections, can all lead to fistula formation.

In conclusion, in my opinion, within a reasonable degree of medical certainty, Ms. Gross had an unremarkable response to the Ethicon mesh. The inflammatory changes were not significant, and they were highly variable. She had scar tissue characteristic of what would be expected after multiple surgical procedures. Similarly, her tissues had evidence of fat necrosis and hemorrhage that independently led to further scarring, often in areas distant from mesh fibers. The entrapment of some nerves, and the sclerosis of blood vessels was a result of surgical manipulation of the tissues, and cannot be linked to speculative and biologically unsupported effects of the mesh. At least some of the vascular sclerosis may be a reflection of underlying changes in blood vessels having nothing to do with mesh, or surgery.

All of the opinions expressed in this report have been stated within a reasonable degree of medical certainty. I reserve the right to supplement my opinions and respond to the testimony of Dr. Welch. I may also provide additional testimony in response to testimony of plaintiff's experts on subjects which are within the scope of my professional expertise.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Factor', written over a horizontal line.

Stephen M. Factor, M.D.
Professor of Pathology & Medicine
Albert Einstein College of Medicine
Chairman, Department of Pathology
Jacobi Medical Center

LIST OF MATERIALS – LINDA GROSS

I. PATHOLOGY / MEDICAL RECORDS / OTHER RECORDS

Pathology slides in the Gross case

Disc containing pictures of pathology slides for Gross case

Operative and Pathology Reports for Gross

Linda Gross

Avera McKennan Hospital, 1-122 (medical records), 1-3 (billing)

Bridgeway Counseling Center, 2-9

Brown Clinic, 1-760

Clary Document Management, 1-24

Innovative Pain and Procedural Center, 1-47

Lake Area Vo Tech, 1-3

Lutheran Social Services, 1-46

Mayo Clinic, 1-428

Medicare and Medicaid, 1-50

Medical Advanced Pain Specialists, 1

North Memorial Medical Center, 1-42 (medical records), 1-4 (billing)

Prairie Lakes Hospital Path Slides

Prairie Lakes Hospital Path Reports 1-9

Prairie Lakes Hospital, 1-530 (medical records), 1-182 (billing)

Sanford Clinic Urogynecology, 1-18

Sanford Clinic Watertown, 1-54

Sanford Health Network, 1-2

SSA Records, 1-1368

St. Joseph, 1-592 (medical records), 1-54 (billing)

St. Joseph Advanced Pelvis Surgery, 1-80

Exhibit 7 to Linda Gross's 10.12.10 Deposition, Benson medical records

Medical records provided by plaintiff

VNR, 1-3

Linda Gross Complaint and Plaintiff Fact Sheet

II. DEPOSITIONS AND EXHIBITS

Pamela Wicker, 4.2.12

Pamela Wicker, 4.3.12

Richard Bercik, 3.22.12

William Wicker, 4.3.12

Kevin Benson, 4.9.12

Bradley Gross, 6.6.12

Jeffrey Gross, 10.14.10

Linda Gross, 10.12.10

Linda Gross, 10.13.10

Linda Gross, 4.10.12

Terry Gross, 6.6.12
Tyler Gross, 6.6.12
Mary Johnson, 6.8.12
Jacalynn Lake, 6.8.12
Clark Likness, 6.7.12
Emanuel Trabuco, 6.28.12
Edwin Gerrish, 7.30.12
Julie Gollnick, 7.31.12
Karen Holscher, 7.31.12
Alan Lawrence, 7.30.12
Patrick Retterath, 7.30.12

III. ARTICLES / OTHER

Abdel-fattah, et al (2008) Retrospective multicentre study of the new minimally invasive mesh repair devices for pelvic organ prolapsed

Abed, et al. (2011) Incidence and management of graft erosion, wound granulation, and dyspareunia following vaginal prolapsed repair with graft materials: a systematic review

Afonso, et al. (2007) Mechanical properties of polypropylene mesh used in pelvic floor repair

Altman, et al. (2007) Perioperative Morbidity Using Transvaginal Mesh in Pelvic Organ Prolapse Repair

Altman, Daniel (2009) Sexual Dysfunctino after Trocar-Guided Transvaginal Mesh Repair of Pelvic Organ Prolapse

Altman, Daniel (2007) Short-term outcome after transvaginal mesh repair of pelvic organ prolapsed

Azevedo (2004) Understanding the Enzymatic Degradation of Biodegradable Polymers and Strategies to Control Their Degradation Rate

Bafghi, et al. (2005) Comparison between monofilament and multifilament polypropylene tapes in urinary incontinence

Barbolt (2006) - Biology of Polypropylene/Polyglactin 910 grafts

Binnebosel (2010) Impact of mesh positioning on foreign body reaction and collagenous ingrowth in a rabbit model of open incisional hernia repair

Binnebosel (2011) Biocompatibility of prosthetic meshes in abdominal surgery

Birch (2002) The role of synthetic and biological prostheses in reconstructive pelvic floor surgery

Blais (1976) The photo-oxidation of Polypropylene Monofilaments

Boukerrou (2007) Study of the biomechanical properties of synthetic mesh implanted in vivo

Boukerrou (2008) Tissue resistance of the tension-free procedure: What about healing?

Boulanger (2006) Tissue integration and tolerance to meshes used in gynecologic surgery: An experimental study

Boulanger (2008) Bacteriological Analysis of Meshes Removed for Complications after surgical management of urinary incontinence or pelvic organ prolapse

Boulanger (2008) Development of an animal model to study meshes used in genital prolapse surgery

Bracco, et al. (2005) Comparison of polypropylene and polyethylene terephthalate (Dacron) meshes for abdominal wall hernia repair: A chemical and porphological study

Bringman (2010) Hernia repair: the search for ideal meshes

Caquant, et al. (2008) Safety of Trans Vaginal Mesh procedure: Retrospective study of 684 patients

Clave, et al. (2009) Polypropylene as a reinforcement in pelvic surgery is not inert: comparative analysis of 100 explants

Cobb (2005) The Argument for lightweight Polypropylene Mesh in Hernia Repair

Cobb (2006) Textile Analysis of Heavyweight, Mid-Weight and Light-Weight Polypropylene Mesh in a Porcine Ventral Hernia Model

Cobb, Heniford (2009) Mesh Terminology 101

Cosson (2003) Mechanical properties of synthetic implants used in the repair of prolapse and urinary incontinence in women: which is the ideal materials?

Cosson (2004) A biomechanical study of the strength of vaginal tissues Results on 16 post-menopausal patients presenting with genital prolapse

Cosson (2012) Biomechanical Properties of Human Pelvic Organs

Cosson, et al. (2005) Prolift (Mesh (Gynecare) for Pelvic Organ Prolapse Surgical Treatment Using the TVM Group Technique: A Retrospective Study of 687 Patients

Costello (2007) Characterization of heavyweight and lightweight polypropylene prosthetic mesh explants from a single patient

Costello, et al. (2007) Materials Characterization of Explanted Polypropylene Hernia Meshes

Cozad (2010) Material characterization of explanted polypropylene, polyethylene terephthalate, and expanded polytetrafluoroethylene composites: Spectral and thermal analysis

Davila, et al. (2006) Clinical implications of the biology of grafts: conclusions of the 2005 IUGA Grafts Roundtable

Debodinance (1999) Tolerance of synthetic tissues in touch with vaginal scars review to the point of 287 cases

Deprest (2005) Synthetic and Biodegradable Prostheses in Pelvic Floor Surgery

Deprest (2006) The biology behind fascial defects and the use of implants in pelvic organ prolapse repair

Deprest (2007) Tensile Strength and Host Response towards Silk and Type I Polypropylene Implants Used for Augmentation of Fascial Repair in a Rat Model

Dietz (2003) Mechanical properties of urogynecologic implant materials

Dora, et al. (2004) Time Dependent Variations in Biomechanical Properties of Cadaveric Fascia, Porcine Dermis, Porcine Small Intestine Submucosa, Polypropylene Mesh and Autologous Fascia in the Rabbit Model: Implications for Sling Surgery

Dwyer (2006) Evolution of biological and synthetic grafts in reconstructive pelvic surgery

Elmer, Caroline (2009) Histological Inflammatory Response to Transvaginal Polypropylene Mesh for Pelvic Reconstructive Surgery

Elmer, Caroline (2009) Trocar-Guided Transvaginal Mesh Repair of Pelvic Organ Prolapse

Elmer, Caroline (2012) Risk Factors for Mesh Complications after Trocar Guided Transvaginal Mesh Kit Repair of Anterior Vaginal Wall Prolapse

Eth Doc (2012) PSE Study No. 08-0311 (Shrinkage)

FDA Reclass on PP Sutures

Iglesia, et al. (2010) Abstract Vaginal Mesh for Prolapse: A Randomized Controlled Trial

Jacquetin (2004) Conceptual Advances in the Surgical Management of Genital Prolapse

Jacquetin, et al. (2010) Total transvaginal mesh (TVM) technique for treatment of pelvic organ prolapse: a 3-year prospective follow-up study

Jacquetin, et al. Abstract Prospective Clinical Assessment of the Trans Vaginal Mesh (TVM) Technique for Treatment of Pelvic Organ Prolapse – One Year Results of 175 Patients

Julian (1996) The efficacy of Marlex mesh in the repair of severe, recurrent vaginal prolapse of the anterior midvaginal wall

Junge (2009) Adhesion formation of a polyvinylidene fluoride/polypropylene mesh for intra-abdominal placement in a rodent animal model

Karlovsy, et al. (2005) Synthetic Biomaterials for Pelvic Floor Reconstruction

Klinge (1998) Functional and morphological evaluation of different polypropylene-mesh modifications for abdominal wall repair

Klinge (1998) Shrinking of Polypropylene Mesh in vivo: An Experimental Study in Dogs

Klinge (1999) Foreign Body Reaction to Meshes Used for the Repair of Abdominal Wall Hernias

Klinge (2002) Functional and morphological evaluation of a low-weight, monofilament Polypropylene Mesh for Hernia Repair

Klinge (2002) Influence of implantation interval on the long-term biocompatibility of surgical mesh

Klinge (2002) PVDF as a new polymer for the construction of surgical meshes

Klinge (2002) Impact of Polymer Pore Size on the Interface Scar Formation in a Rat Model

Klinge (2002) Influence of Mesh Materials on Collagen Deposition in a Rat Model

Klinge (2003) Open Mesh Repair

Klinge (2003) Vypro II® Mesh in Hernia Repair: Impact of Polyglactin on Long-Term Incorporation in Rats

Klinge (2004) - Polypropylene in the intra-abdominal position_ Influence of pore size

Klinge (2005) Influence of polyglecaprone 25 (Monocryl) supplementation on the biocompatibility of a polypropylene mesh for hernia repair

Klinge (2005) The lightweight and large porous mesh concept for hernia repair

Klinge (2006) Light weight meshes in incisional hernia repair.

Klinge (2007) Experimental Comparison of Monofile Light and Heavy Polypropylene Meshes: Less Weight Does Not Mean Less Biological Response

Klinge (2007) Polymeric meshes induce zonal regulation of matrix metalloproteinase-2 gene expression by macrophages and fibroblasts

Klinge (2008) New polymer for intra-abdominal meshes-PVDF copolymer

Klinge (2010) Large-Pore PDS Mesh Compared to Small-Pore PG Mesh

Klinge (2011) Comparison of Long-Term Biocompatibility of PVDF and PP Meshes

Klinge (2012) In vivo MRI visualization of mesh shrinkage using surgical implants loaded with superparamagnetic iron oxides

Klinge (2012) Mesh biocompatibility: effects of cellular inflammation and tissue remodelling

Klinge (2012) Modified classification of surgical meshes for hernia repair based on the analyses of 1,000 explanted meshes

Klinge, et al. (2002) Impact of Polymer Pore Size on the Interface Scar Formation in a Rat Model (ETH.MESH.02221640 – ETH.MESH.02221646)

Klosterhalfen (2003) Biological response to mesh

Klosterhalfen, et al. (2005) The lightweight and large porous mesh concept for hernia repair (ETH.MESH.02221647 – ETH.MESH.02221661)

Laroche (1995) Polyvinylidene Fluoride Monofilament Sutures: Can They Be Used Safely for Long-Term Anastomoses in the Thoracic Aorta?

Lucente, et al. Abstract Trans-Vaginal Mesh (TVM): An Innovative Approach to Placing Synthetic Mesh Transvaginally for Surgical Correction of Pelvic Support Defects – Peri-Operative Safety Results

Mary (1998) Comparison of the In Vivo behavior of Polyvinylidene Fluoride and Polypropylene Sutures Used in Vascular Surgery

Miller, et al. (2011) Prospective Clinical Assessment of the Transvaginal Mesh Technique for Treatment of Pelvic Organ Prolapse – 5-year Results

Moalli (2012) Uniaxial biomechanical properties of seven different vaginally implanted meshes for pelvic organ prolapse

Moore, et al. (2009) Vaginal Mesh Kits for Pelvic Organ Prolapse, Friend or Foe: A Comprehensive Review

Mouritsen (2007) Vaginal pressure during daily activities before and after vaginal repair

Muhl (2008) New Objective Measurement to Characterize the Porosity of Textile Implants

Nieminen, et al. (2008) Symptom resolution and sexual function after anterior vaginal wall repair with or without polypropylene mesh

Nilsson, et al. (2008) Eleven years prospective follow-up of the the tension-free vaginal tape procedure for treatment of stress urinary incontinence

Ostergard (2011) Degradation, infection and heat effects on polypropylene mesh for pelvic implantation: what was known and when it was known

Ozog (2011) Persistence of polypropylene mesh anisotropy after implantation: an experimental study

Ozog (2011) Shrinkage and biomechanical evaluation of lightweight synthetics in a rabbit model for primary fascial repair

- Pandit, et al. (2004) Design of surgical meshes – an engineering perspective
- Pascual (2008) Early tissue incorporation and collagen deposition in lightweight polypropylene meshes: bioassay in an experimental model of ventral hernia
- Rubod & Cosson (2008) Biomechanical properties of vaginal tissue - preliminary results
- Scheidbach (2004) - In vivo studies comparing the biocompatibility of various polypropylene meshes and their handling properties during endoscopic total extraperitoneal (TEP) patchplasty
- Schug-Paff (2008) A lightweight, partially absorbable mesh (Ultrapro) for endoscopic hernia repair: experimental biocompatibility results obtained with a porcine model
- Sivaslioglu, et al. (2008) A randomized comparison of polypropylene mesh surgery with site-specific surgery in the treatment of cystocele
- Sokol 1-Year Objective and Functional Outcomes of a Randomized Clinical Trial of Vaginal Mesh for Prolapse (VAMP) (ETH.MESH.00410458 – ETH.MESH.01823861)
- Stanford, et al. (2005) The Use of Mesh in pelvic reconstructive surgery
- Tsui, et al. (2005) Complications of synthetic graft materials used in suburethral sling procedures
- Usher (1958) Use of marlex mesh in the repair of incisional hernias
- Usher (1959) Further observations on the use of marlex mesh – a new technique for the repair of inguinal hernias
- Usher (1962) Polypropylene monofilament - a new biologically inert suture for closing contaminated wounds
- Williams (1982) Biodegradation of Surgical Polymers
- Williams (1992) Mechanisms of Biodegradation of Implantable Polymers
- Williams (1994) Biodetroration/biodegradation of polymeric medical devices In Situ
- Winters (2011) Vaginal and Abdominal Reconstructive Surgery for Pelvic Organ Prolapse – Chapter 72 in Wein 10th Ed.
- Withagen, Mariella (2010) Does trocar-guided tension-free vaginal mesh (Prolift) repair provoke prolapse of the unaffected compartments?
- Withagen, Mariella (2011) Risk Factors for Exposure, Pain, and Dyspareunia after Tension-Free Vaginal Mesh Procedure
- Woodruff (2008) Histologic Comparison of Pubovaginal Sling Graft Materials A comparative Study

Gynecare Gynemesh PS Nonabsorbable Prolene Soft Mesh IFU

Gynecare Prolift IFU dated 2004 (Exh. 10) ETH-00295 – ETH-00300

Gynecare Prolift IFU dated 2009 (Exh. 13) ETH-10977 – ETH-10983

Anatomic Overview of Prolift Anterior and Posterior Procedure

Gynecare Prolift Pelvic Floor Repair Systems Procedure DVD

TVT IFUs

Gynemesh PS A New Mesh for Pelvic Floor Repair – Early Clinical Experience

Gynecare Prolift Pelvic Floor Repair System Surgical Technique Guide

Ethicon Memo to R. Roussesau from Thomas Barbolt dated 12/2/99 re: Biocompatibility Risk Assessment for Soft PROLENE Mesh

Ethicon Report, PSE Accession No. 00-272, Project No. 48010 Design Verification: Evaluation of Visibility, Hardness, Resistance to Cannula Damage, and Fixation Properties of Soft Prolene Mesh ETH.MESH00220901 – 0911

Ethicon March 5, 2001 Memo to Prolene Soft Mesh Team re: Prolene Soft Mesh Validation Completion Report for Pre and Intra-Operative Usage from Mark Mooney
Ethicon Final Report PSE Accession No. 00-0035 An Exploratory 91-day Tissue Reaction Study of Polypropylene-Based Surgical Mesh in Rats (PSE ACC. NO. 00-0035) dated 7/11/01

Ethicon December 2, 2001 Memo to Maggie D'Aversa from David Stoloff re: Gynemesh Prolene Soft Mesh – Preclinical Functionality Testing Strategy ETH.MESH.00220875 – 0877

Ethicon Final Report PSE Accession No. 01-0321, Project No. 48010 A 28-day Tissue Reaction Study of Prolene Polypropylene Mesh and Autoclaved Prolene Polypropylene Mesh Implanted Intramuscularly and Subcutaneously in Rats dated 5/23/02 – ETH.MESH02216602 – 6611

Ethicon Final Report PSE Accession No. 02-0079 14-day Adhesion Prevention Study of Interceed Fabric, PDS or POE VI-Based Films on Prolene-Soft, Pronova, or Vypro Mesh, and Competitive products in the Rabbit Sidewall Model with Peritoneal Defects dated 10/28/02 – ETH.MESH.021338843 – 3861

Ethicon Report PSE Accession No. 02-0579 Project No. 48010, Histological Evaluation and Comparison of Mechanical Pull Out Strength of Prolene Mesh and Prolene Soft Mesh in a Rabbit Model dated 3/5/03. First page only numbered 0300241

Ethicon Report dated 1/19/05 Biocompatibility Risk Assessment for Gynecare PROLIFT Total Pelvic Floor Repair System ETH.MESH.01310817 - ETH.MESH.01310829

Ethicon Completion Report: BE-2004-1606 Design Verification for the Gynecare Prolift Kit – Interface, Human Factors, Function, and Clinical Requirements dated 1/27/05
ETH.MESH.01310776 – 0812

Clinical Study Report Evaluation of the TVM technique for treatment of genital prolapse dated 6/27/06 – Clinical assessment of feasibility, complications and effectiveness at twelve months, three years and five years of the TVM technique for genital prolapse
ETH.MESH.00012009 - ETH.MESH.00012089

Clinical Study Report Evaluation of the TVM technique for treatment of genital prolapse dated 6/28/06 – Clinical assessment of the TVM technique for treatment of genital prolapse. Final report of 12-month evaluation. ETH.MESH.00012090 - ETH.MESH.00012163

Final Report PSE Study No. 08-0311; Project No 67624 – A 6-month Pilot Study to Evaluate Matrix Materials in a Rabbit Subcutaneous Implantation Model dated 2/24/12

Chart comparing Ethicon, AMS and Bard's products by Characteristic, Area Weight, Largest Pore Size (n=5), Porosity, Bending Stiffness-Body, and Burst Pressure – Body

Ethicon Performance Evaluation Technical Report Assessment of Competitor Pelvic Floor Repair Meshes, Version 1 Study Number CPC-2006-0552 ETH.MESH.02181321 – 1337

International Urogynecological Association: The Usage of Grafts in Pelvic Reconstructive Surgery Symposium 2005

Uwe Klinge Expert Report

Thomas Muhl Expert Report

Thomas Mang Expert Report

Donald Kreutzer Expert Report

William Welch Expert Report

Edmond Provder Expert Report on Gross

Michael Margolis Expert Report on Gross

Ronni Seltzer Expert Report on Gross

Claire Serrato Expert Report on Gross

Ann Weber Expert Report on Gross

William Welch Expert Report on Gross

Stephen M. Factor, M.D.

October, 2012

CURRICULUM VITAE

Name: Stephen Michael Factor, M.D.

Date of Birth: October 28, 1942

Place of Birth: New York, NY

Nationality: USA

Present Title: Professor of Pathology and Professor of Medicine (Cardiology) with tenure

Board Certification: Anatomic and Clinical Pathology, 1975

Licensure: New York State, #108706, 1971
New York State Licensed Laboratory Director

EDUCATION:

Queens College of the City University of New York, NY, B.A., 1964
Albert Einstein College of Medicine, Bronx, NY, M.D., 1968

HONORS:

Albert Einstein College of Medicine, Bronx, NY:

Alpha Omega Alpha Honor Society (election Junior year)	1967
Abraham and Joseph Spector Fellowship in Pathology	1978-present
Leo M. Davidoff Society for excellence in teaching	1988
Tenured appointment	1989
First recipient, Harry Eagle Award for Outstanding Basic Science Teaching	1995
Distinguished Alumnus (selected from over 8,000 graduates)	1998

National:

Fellow, American College of Cardiology	1983
Fellow, New York Cardiological Society	1985
Fellow, College of American Pathologists	1986
President, Society for Cardiovascular Pathology	1988-1989
Editor-in-Chief and Founding Editor, CARDIOVASCULAR PATHOLOGY	1991-2001
Fellow, Wildlife Conservation Society	1999-2002

Stephen M. Factor, M.D.

CLINICAL AND ADMINISTRATIVE RESPONSIBILITIES:

Jacobi Medical Center (formerly Bronx Municipal Hospital Center), Bronx, NY
 Director, Department of Anatomic Pathology 1985-1997
 Member, Executive Committee, Medical Board
 Attending Pathologist
 Chairman, Department of Pathology 1997-
 Chairman, Search Committee for Chairman,
 Department of Surgery 2010-2011
 Member, Executive Committee, New York Medical Associates (NYMA)

PROFESSIONAL EXPERIENCE:

University of Michigan Hospitals, Ann Arbor, MI
 Department of Surgery
 Intern 1968-1969
 Resident 1969-1970

Albert Einstein College of Medicine and Affiliated Hospitals,
 Bronx Municipal Hospital Center and Weiler Hospital of the Albert Einstein College of Medicine,
 Bronx, NY

Department of Pathology
 Resident, Anatomic and Clinical Pathology 1970-1971

United States Army Medical Corps 1971-1973
 Captain (1971), and Major (1972-1973)
 Martin Army Hospital, Fort Benning, GA
 Chief, Anatomic Pathology Service 1972-1973

Homer Cobb Memorial Hospital, Phenix City, AL
 Visiting Pathologist 1972-1973

Albert Einstein College of Medicine and Affiliated Hospitals,
 Bronx Municipal Hospital Center and Weiler Hospital of the Albert Einstein College of Medicine,
 Bronx, NY

Department of Pathology
 Resident, Anatomic and Clinical Pathology 1973-1975
 Chief Resident 1974-1975

Albert Einstein College of Medicine, Bronx, NY

Department of Pathology
 Assistant Instructor 1974-1975
 Assistant Professor 1975-1980
 Associate Professor 1980-1985
 Professor 1985
 Tenured appointment 1989
 Vice Chairman for Anatomic Pathology 1993-1995

Stephen M. Factor, M.D.

Department of Medicine

Associate Professor, Division of Cardiology	1987
Professor, Division of Cardiology	1989
Tenured appointment	1989

MEDICAL SCHOOL SERVICE:

Albert Einstein College of Medicine, Bronx, NY:	
Student-Faculty Senate, elected Senator	1976-1981
	1982-1986
	1988-1990
	1990-1992
	1993-1995
Student Promotions Committee	1978-1998
Dean's Advisory Committee on the Electron Microscopy Center	1980-1981
Space Committee	1983-1984
Committee on Appointments and Promotions, Professors	1985-1990
Co-chairman	1988-1989
Chairman	1989-1990
Search Committee, Chairman Physiology and Biophysics	1988-1991
Search Committee, Chairman Cardiothoracic Surgery	1988-1990
Chairman, Subcommittee for Institutional Self-Study, Clinical Departments, LCME	1990-1991
Educational Policy and Planning Committee	1991-1995
Co-chairman	1992-1995
Tenure Committee	1996-1999
Division of Education, Co-chairman	1996-2000
Search Committee, Chairman Internal Medicine	1998-1999
Division of Education, Executive Committee	2000-present
Medical School Student Admission Committee	1977-present
Co-chairman	1987-2010
Basic Science Course Leaders Committee	2003-present
Scientific Foundations of Medicine Committee	2003-present

WITHIN THE DEPARTMENT OF PATHOLOGY:

Chairman, Resident Affairs Committee	1976-1983
Chairman, Resident Selection Committee	1983-1985
Course Leader & Primary Lecturer in Cardiovascular Pathology and Medicine	1976-present
Senior Faculty Advisory Committee	1986-1993
Steering Committee	1993-1995

Stephen M. Factor, M.D.

INVITED LECTURES & PROGRAM CHAIRMANSHIPS (SELECTED): 1983-present

Blenheim Conference on Ischemic Heart Disease
Blenheim Palace, England
Invited participant-1983

Chinese Academy of Medical Sciences
Peoples Republic of China
Invited lecturer, 10 Medical Schools-1985

Third Antwerp-La Jolla-Kyoto Research Conference on Cardiac Function
Kyoto, Japan
Invited participant, and Session Chairman-June, 1987

Fourth World Congress for Microcirculation
Tokyo and Osaka, Japan
Invited participant and Session Chairman-July-August, 1987

International Society for Heart Research
European Division, Budapest, Hungary
Invited participant and Session Chairman-September, 1987

Inflammatory Heart Disease
Snowmass, CO
Invited participant-July, 1988

International Society for Heart Research
European Division, Oxford, England
Session Chairman-September, 1988

American Heart Association, 61st Annual Scientific Session
Washington, D.C.
Session Co-chairman-November, 1988

NIH Conference on Modeling in Biomedical Research
Invited speaker-May, 1989

International Symposium on the Diabetic Heart
Tokyo, Japan
Invited speaker and Session Chairman-October, 1989

American Heart Association, 62nd Annual Scientific Session
New Orleans, LA
Session Co-Chairman-November, 1989

Conference on Diabetes

Stephen M. Factor, M.D.

Montpelier, France
Invited speaker-July, 1990

University of Pennsylvania, Department of Cardiothoracic Surgery
Philadelphia, PA
Invited speaker-August, 1990

Endocrines and the Heart
Brussels, Belgium
Invited speaker-October, 1990

Frontiers in Heart Failure
Whistler, British Columbia
Invited speaker-February, 1991

Society for Cardiovascular Pathology
Chicago, IL
Invited speaker-March, 1991

Chairman, Mini-Symposium on Cardiovascular Pathology, FASEB
Atlanta, GA-April, 1991

Second International Symposium on Myocarditis
Airlie, VA
Invited speaker-May, 1991

International Symposium on Idiopathic Dilated Cardiomyopathy
Baden-Baden, Germany
Invited speaker-January, 1992

Cellular Abnormalities Associated with Cardiomyopathies in Animals
Tokyo, Japan
Invited Speaker
Member, International Advisory Committee-May, 1992

Symposium on Ischemic Heart Disease International Academy of Pathology
Madrid, Spain
Invited Speaker-October, 1992

Second International Cardiovascular Pathology Course University of Toronto
Invited Speaker-June, 1992

Stephen M. Factor, M.D.

Third International Symposium on the Pig Model for Biomedical Research (Hypertrophic
Cardiomyopathy)
Taipei, Taiwan
Invited Speaker-November, 1992

American Physiology Society (FASEB)
Symposium Speaker-April, 1993

International Society for Heart Research (ISHR)
Symposium Speaker-June, 1993

National Taiwan University, Taiwan
Kaohsiung Medical College, Taiwan
Chinese University of Hong Kong
Invited Lecturer-October, 1993

XIIth World Congress of Cardiology
Berlin, Germany
Invited Speaker-September, 1994

XXth International Congress of the International Academy of Pathology
Hong Kong
Symposium Chairman and Organizer-October, 1994

Congress of the Italian Society of Cardiology
Rome, Italy
Invited Lecturer and Honoree of the Cardiovascular
Pathology Group-December, 1994

American Society of Investigative Pathology
Atlanta, GA
Symposium Co-chairman and Lecture-April, 1995

Chagas' Heart Disease Symposium
Milan, Italy
Invited Speaker-June, 1995

Symposium on Hypertensions and Diabetes Mellitus
Budapest, Hungary
Invited Speaker-July, 1995

Dedication of Cardiovascular Center, Pig Research Institute of Taiwan
Maioli, Taiwan
Keynote Speaker-October, 1995
Keystone Symposium, Immunologic Aspects of Cardiovascular Disease

Stephen M. Factor, M.D.

Invited Speaker-January, 1997

International Society for Heart Research
Symposium Co-chairman
Vancouver-July, 1997

US & Canadian Academy of Pathology
Cardiovascular Pathology Symposium
Boston, MA
Invited Speaker-March, 1998

Oklahoma University Health Sciences Center
Oklahoma City, OK
Invited Speaker-November, 1998

Heart Failure Society of America
San Francisco, CA
Invited Speaker-September, 1999

Curriculum Committee: Diabetes for the Cardiovascular Specialist
Atlanta, GA
Invited Speaker and Participant, November, 1999

US & Canadian Academy of Pathology Cardiac Case Conference
Chicago, IL
Invited Speaker, February, 2002

OTHER:

NIH Special Study Section, Ad Hoc Member 1984

National Panel on Definition and Diagnosis of Myocarditis
Invited participant 1984

Consultant and Panel Pathologist
Multicenter Myocarditis Treatment Trial 1986-1994

Site Visitor, Massachusetts General Hospital
Ischemia SCOR Grant 1986-1987

NIH (NHLBI), Cardiovascular A Study Section
Ad Hoc Member 1990

NIH Parent Review Committee, Atherosclerosis SCOR
(including chairing site visit) 1991

NIH (NHLBI) Special Study Section
Cardiovascular Disease in Blacks and Women 1992

Stephen M. Factor, M.D.

NIH (NHLBI) Reverse site visit member Ischemia SCOR	1994
NIH (NHLBI) Ad Hoc Member, Cardiovascular B Study Section	1996
NIH (NHLBI) Member, SCOR Study Section	1996
American Heart Association, Committee on Scientific Sessions Program, Circulation Council	1996
NIH (NHLBI) Special Emphasis Panel Genesis of Cardiomyopathy with HIV Infection and Alcohol Abuse	1999
Mortality and Morbidity Panel, REMATCH Trial- Left Ventricular Assist Device (LVAD), Columbia-Presbyterian	2000-

PROFESSIONAL SOCIETIES:

Federation of American Societies for Experimental Biology (AAP)	
Fellow, American College of Cardiology	
Fellow, College of American Pathologists	
New York Pathological Society - Trustee	1990-1994
New York Pathologists Club	
New York and American Heart Association	
American Heart Association Council on Basic Science	
Fellow, The New York Cardiological Society	
International Academy of Pathology, North American Division	
International Society for Heart Research, American Division	
International Association for Cardiac Biological Implants Society for Cardiovascular Pathology	
Society for Cardiovascular Pathology (Founding Member)	
Steering Committee and Chairman of Governance Committee	1986-1987
Vice President and President-elect	1987-1988
President	1988-1989
Chairman, Publications Committee	1989-1990
Immediate Past President and Member of Executive Board	1989-1991
Member of Executive Board, ex officio	1991-present
Association of Directors of Anatomic and Surgical Pathology	1993-2004

Stephen M. Factor, M.D.

EDITORIAL ACTIVITIES:

1. Editorial Boards

The Journal of the American College of Cardiology	1986-1991
The American Journal of Cardiovascular Pathology	1986-1996
The American Journal of Pathology	2008-

2. Editor-in-Chief, Cardiovascular Pathology

1991-1996
1997-2001

3. Ad Hoc Manuscript Reviewer for:

American Journal of Pathology
Circulation
Circulation Research
American Journal of Physiology
Diabetes
Microvascular Research
Journal of The American College of Cardiology
Basic Research in Cardiology
American Journal of Cardiology
Journal of Molecular and Cellular Cardiology
Laboratory Investigation
Research Communications in Chemical Pathology and Pharmacology
New England Journal of Medicine
Life Sciences Journal
Journal of Clinical Investigation

OTHER REVIEWS:

External Reviewer, grant applications to:

Heart and Stroke Foundation of Canada
British Columbia Health Care Research Foundation

American Heart Association (abstracts, Scientific Session)	1988-present
American College of Cardiology (abstracts, Scientific Session)	1989-present
Academic Consultant in Pathology to Columbia University Press, Publisher of The Columbia Encyclopedia	1990-1993

MAJOR RESEARCH INTERESTS:

Cardiomyopathy (clinical and animal models)
Diabetic and hypertensive heart disease
Myocardial ischemia and infarction (experimental and clinical)
Cardiac microcirculation
Myocardial connective tissue matrix
Atherosclerosis
Pulmonary circulation

Stephen M. Factor, M.D.

GRANT SUPPORT:

NIH #HL-20426 MYOCARDIAL FUNCTION IN DIABETES MELLITUS

PI: EH Sonnenblick

9/1/81-3/31/84

SM Factor: 12% effort

NIH #HL-23171 CORONARY CIRCULATION IN MYOCARDIAL ISCHEMIA

PI: ES Kirk

7/1/78-6/30/84

SM Factor: 20% effort

NIH #HL-18824 MECHANISMS OF HEART FAILURE IN THE MYOPATHIC HAMSTER

PI: EH Sonnenblick

4/1/79-3/31/84

SM Factor: 7% effort

7/1/84-6/30/87 Total amount of grant: \$1,104,002

SM Factor: 25% effort

NIH #HL-29812 MICROVASCULAR DETERMINANTS OF FOCAL MYOCARDIAL NECROSIS

PI: SM Factor

7/1/83-6/30/86 Total amount of grant: \$226,099

SM Factor: 20% of effort

NIH #HL-33240 HEART FAILURE IN HYPERTENSIVE DIABETIC ANIMALS

PI: FS Fein

2/1/84-11/30/87 Total amount of grant: \$372,856

SM Factor: 5% of effort

NIH #HL-35882 PATHOGENESIS OF CARDIOMYOPATHY

PI: M Wittner

12/1/85-11/30/88

SM Factor: 5% of effort

NIH #HL-23171 CORONARY CIRCULATION IN MYOCARDIAL ISCHEMIA

PI: R Forman

7/1/84-6/30/87 Total amount of grant: \$382,959

SM Factor: 10% of effort

NIH #HL-34744-01 IMMUNOSUPPRESSIVE THERAPY FOR BIOPSY-PROVEN MYOCARDITIS

PI: JW Mason

7/1/86-6/30/89 Total amount of grant: \$4,718,460 (grant extended 1990) Consultant

SM Factor: 2 meetings yearly

Stephen M. Factor, M.D.

NIH #HL-37412-01 PROGRAM PROJECT: MECHANISMS OF MYOCARDIAL DYSFUNCTION AND FAILURE

PI: EH Sonnenblick

9/30/88-9/29/93 Total amount of grant: \$4,845,894

SM Factor, PI Project #3, 9/30/91-9/29/92 \$130,697

NIH #HL-27219-11 THE CORONARY CIRCULATION AND MYOCARDIAL ISCHEMIA

PI: C Eng

7/1/88-6/30/91 Total amount of grant: \$439,714

SM Factor: 10% of effort

7/1/93-6/30/94 (Subcontract: Total Direct Amount \$19,948)

NIH # HL-07071 (Training Grant) CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY

PI: RS Aronson

7/1/85-6/30/90 Annual Direct Costs: \$99,614

NY Heart Association, MEDICAL STUDENT RESEARCH FELLOWSHIP

PI: SM Factor

7/92-6/95

NIH #A-3312-01 GENETIC BASIS OF THE PATHOLOGIC ANTI-MYOSIN RESPONSE

PI: B Diamond

7/1/94-6/30-98 Total amount of grant: \$1,017,990

SM Factor: 10% of effort

NY Heart Association, MEDICAL STUDENT RESEARCH FELLOWSHIP

PI: SM Factor

7/94-6/97

NIH #1R01AR 43018, GENETIC BASIS OF THE PATHOLOGIC ANTI-MYOSIN RESPONSE

PI: B Diamond

6/23/95-4/30/99 Annual Direct Costs: \$12,500

SM Factor: 2% of effort

PERSONAL:

Married to the former Sandra Helene Basner, M.S., J.D.

Children: Jason Robert, J.D.

Rachel Elizabeth, M.D.

Home Address: 19 Dan Beard Lane West Redding, CT 06896

Stephen M. Factor, M.D.

PUBLICATIONS:

1. Hall JW, Factor SM, Cerny JC: Traumatic renal artery aneurysm in a solitary kidney. J Urol 107:17-20, 1972
2. Factor SM: Papillary adenocarcinoma of the endometrium with psammoma bodies. Arch Pathol 98:201-205, 1974
3. Halpern GN, Kalies DW, Factor SM, Wein AJ: Malacoplakia causing bilateral ureteropelvic junction obstruction. Urology 3:628- 631, 1974
4. Factor SM: Granulomatous pneumonitis: a result of intrapleural instillation of atabrine and talcum powder. Arch Pathol 100:499- 502, 1975
5. Friedman A, Factor SM: Correlation conferences in radiology and pathology: calcified upper abdominal mass. NY State J Med 76:1320-1323, 1976
6. Lutzker L, Factor SM: The effects of water soluble contrast agents on colon mucosa. Radiology 118:545-548, 1976
7. Factor SM, Turi G, Biempica L: Primary cardiac neurilemmoma. Cancer 37:883-890, 1976
8. Factor SM: Intramyocardial small vessel disease in chronic alcoholism. Am Heart J 92:561-575, 1976
9. Coltoff-Schiller B, Goldfischer S, Wolinsky H, Factor SM: Lipid accumulation in human aortic smooth muscle lysosomes. Am J Pathol 83:39-44, 1976
10. Factor SM, Biempica L, Ratner I, Ahuja KK, Biempica S: Carcinoma of the breast with multinucleated reactive stromal giant cells. Virch Arch Pathol A 374:1-12, 1977
11. Factor SM, Biempica L, Goldfischer S: Intralysosomal accumulation of lipid in the atherosclerosis of chronic organ transplantation. Arch Pathol Lab Med 101:474-477, 1977
12. Puri S, Farmer P, Factor SM: Sclerosing mediastinitis due to aspergillus. NY State J Med 77:774-777, 1977
13. Pasternak BM, Rosen S, Sanson L, Factor SM: Progressive occlusive thromboarteriopathy. Angiology 29:705-712, 1978
14. Factor SM, Biempica L, Winn RM: The histiocytic origin of the multinucleated cells in myeloma kidney. Hum Pathol 9:114-120, 1978

Stephen M. Factor, M.D.

15. Factor SM: Endocardial fibroelastosis: myocardial and vascular alterations associated with viral-like nuclear particles. *Am Heart J* 96:791-801, 1978
16. Factor SM, Sonnenblick EH, Kirk ES: Histological border zone of acute myocardial infarction: islands or peninsulas? *Am J Pathol* 92:111-124, 1978
17. Factor SM, Goldfischer S, Biempica L: Coronary intimal sclerosis in Morquio's syndrome. *Virch Arch Pathol A* 379:1-10, 1978
18. Strobeck JE, Factor SM, Bhan A, Sole M, Liew CC, Fein F, Sonnenblick EH: Hereditary and acquired cardiomyopathies in experimental animals: mechanical, biochemical, and structural features. *Ann NY Acad Sci* 317:59-88, 1979
19. Frishman W, Factor SM, Jordan A, Hellman C, Elkayam U, Lejemtel T, Strom J, Unschuld H, Becker R: Right atrial myxoma: unusual clinical presentation and atypical glandular histology. *Circulation* 59:1070-1075, 1979
20. Factor SM, Frishman W: Sudden death in a narcotic addict four months following aortic valve replacement. (CPC). *Am Heart J* 98:233-242, 1979
21. Koss J, Factor SM: Diabetes mellitus, malabsorption, and congestive heart failure in a middle-aged man. A case of thesaurosclerosis. (CPC). *Am Heart J* 98:77-787, 1979
22. Herskowitz A, Factor SM: Duplication of the mitral valve, with a discussion of the embryogenesis of AV valve duplication. *NY State J Med* 70:260-263, 1979
23. Lejemtel T, Factor SM, Koenigsberg M, O'Reilly M, Frater R, Sonnenblick EH: Mural vegetations at the site of endocardial trauma in bacterial endocarditis complicating idiopathic subaortic stenosis. *Am J Cardiol* 44:569-574, 1979
24. Okun EM, Factor SM, Kirk ES: End-capillary loops in the heart: An explanation for discrete myocardial infarctions without border zones. *Science* 206:565-567, 1979
25. Ongseng F, Chervu LR, Kogan SJ, Factor SM, Levitt SB, Blaufox MD: Static testicular imaging utilizing 201 Tl. *Invest Urol* 16:451- 452, 1979
26. Factor SM, Reichel J: Primary pulmonary hypertension. (CPC). *Am Heart J* 99:789-798, 1980
27. Herskowitz A, Cho S, Factor SM: Syphilitic coronary arteritis. *NY State J Med* 80:971-974, 1980
28. Factor SM, Minase T, Sonnenblick EH: Clinical and morphological features of human hypertensive-diabetic cardiomyopathy. *Am Heart J* 99:446-458, 1980

Stephen M. Factor, M.D.

29. Factor SM, Okun EM, Minase T: Capillary microaneurysms in the human diabetic heart. *N Eng J Med* 302:384-388, 1980
30. Factor SM: Microvascular injection of the human heart. *Med Radiogr Photogr* 56:cover (and accompanying article), 1980
31. Factor SM, Okun EM, Kirk ES: The histological lateral border of acute canine myocardial infarction: a function of the microcirculation. *Circ Res* 48:640-649, 1981
32. Tanowitz H, Davies P, Factor SM, Minase T, Herskowitz A, Wittner M: Comparison of choline acetyl transferase activity and morphology in susceptible and resistant inbred mice infected with the Brazil strain of *T. cruzi*. *Exp Parasitol* 51:269-278, 1981
33. Factor SM, Rubin K, Frishman W: Adult respiratory distress syndrome one month following myocardial infarction. *NY State J Med* 81:226-234, 1981
34. Factor SM, Bhan R, Minase T, Wolinsky H, Sonnenblick EH: Hypertensive-diabetic cardiomyopathy in the rat: an experimental model of human disease. *Am J Pathol* 102:219-228, 1981
35. Factor SM: Intramural pathology in the diabetic heart: interstitial and microvascular alterations. *Mt Sinai J Med* 49:208-214, 1981
36. Koenigsberg M, Factor SM, Cho S, Herskowitz A, Nitowsky H, Morecki R: Fetal Marfan's syndrome: prenatal ultrasound diagnosis with pathological confirmation of skeletal and aortic lesions. *Prenat Diag* 1:241-247, 1982
37. Factor SM, Kirk ES: Microcirculatory determinants of infarct dimensions. In, *MICRO-CIRCULATION OF THE HEART*, (eds. H Tillmanns, W Kubler, H Zebe). Springer-Verlag, Berlin, 1982, pp 141-148
38. Sonnenblick EH, Factor SM, Strobeck JE, Capasso J, Fein F: The pathophysiology of heart failure: the primary role of microvascular hyper-reactivity and spasm in the development of congestive cardiomyopathies. In, *CONGESTIVE HEART FAILURE: CURRENT RESEARCH AND CLINICAL APPLICATIONS*, (eds. E Braunwald, MB Mock, J Watson). Grune & Stratton, NY, 1982, pp 323-327
39. Factor SM, Minase T, Cho S, Dominitz R, Sonnenblick EH: Microvascular spasm in the cardiomyopathic Syrian hamster: a preventable cause of focal myocardial necrosis. *Circulation* 66:342-354, 1982
40. Factor SM, Cho S, Sonnenblick EH: Diabetic heart disease: microvascular abnormalities in clinical and experimental cardiomyopathy. In, *ADVANCES IN PATHOLOGY*, (ed. E Levy). Pergamon Press, Oxford, 1982, pp 323-327

Stephen M. Factor, M.D.

41. Factor SM, Sonnenblick EH: Hypothesis: is congestive cardiomyopathy secondary to a hyper-reactive myocardial microcirculation (microvascular spasm)? *Am J Cardiol* 50:1149- 1152, 1982
42. Factor SM, Cho S, Sternlieb I, Scheinberg IH, Goldfischer S: The cardiomyopathy of Wilson's disease: myocardial alterations in nine cases. *Virch Arch Pathol A* 397:301-311, 1982
43. Gabbay S, Factor SM, Strom J, Becker R, Frater RWM: Sudden death due to cuspal dehiscence of the Ionescu-Shiley valve in the mitral position. *J Thorac Cardiovasc Surg* 84:313-314, 1982
44. Factor SM, Okun EM, Minase T, Kirk ES: The microcirculation of the human heart: end-capillary loops with discrete perfusion fields. *Circulation* 66:1241-1248, 1982
45. Matos MI, Factor SM: Hemoptysis and abdominal pain in a 74 year old man. (CPC). *Einstein Quart J Biol Med* 1:95-102, 1982
46. Forman R, Cho S, Factor SM, Kirk ES: Acute myocardial infarct extension into a previously preserved subendocardial region at risk in dogs and patients. *Circulation* 67:117-124, 1983
47. Frater RWM, Gabbay S, Shore D, Factor S, Strom J: Reproducible replacement of elongated or ruptured mitral valve chordae. *Ann Thorac Surg* 35:14-28, 1983
48. Factor SM, Minase T, Bhan R, Wolinsky H, Sonnenblick EH: Hypertensive-diabetic cardiomyopathy in the rat: ultrastructural features. *Virch Arch Pathol A* 398:305-317, 1983
49. Sonnenblick EH, Strobeck J, Capasso J, Factor SM: Ventricular Hypertrophy: Models and Methods. In, *PERSPECTIVES IN CARDIOVASCULAR RESEARCH*, (eds. RC Tarazi, JB Dunar). Raven Press, NY, 1983, pp 13-20
50. Hyman A, Podolsky A, Factor SM: Focal adrenal necrosis and fibrosis in a general autopsy population. *New York State J Med* 83:829-834, 1983
51. Factor SM, Sonnenblick EH: Microvascular spasm as a cause of cardiomyopathies. *Cardiovasc Rev Rep* 4:1177-1182, 1983
52. Pick P, Jean E, Horoupian D, Factor S: Xanthogranuloma of the dura in systemic Weber-Christian disease. *Neurology* 33:1067- 1070, 1983
53. Fein FS, Factor SM, Cho S, Miller-Green B, Carroll D, Sonnenblick EH: Catecholamine induced myocardial necrosis in experimental diabetes mellitus. *Arch Pathol Lab Med* 107:480-483, 1983

Stephen M. Factor, M.D.

54. Robinson TF, Cohen-Gould L, Factor SM: Skeletal framework of mammalian heart muscle. Arrangement of inter- and pericellular connective tissue structures. *Lab Invest* 49:482-498, 1983
55. Sonnenblick EH, Factor SM, Lejemtel TH: The rationale for inotropic therapy in heart failure. *Cardiovasc Rev Rep* 4:910- 925, 1983
56. Strom JA, Gabbay S, Factor SM, Frishman WH, Frater RWM: Prospective diagnosis of a dehiscence of an Ionescu-Shiley pericardial xenograft valve by non-invasive methods. *Med Ultrasound* 7:127-131, 1983
57. Katz DA, Ben-Ezra J, Factor SM, Horoupian DS, Goldfischer S: Fatal pulmonary and cerebral fat embolism in systemic lupus erythematosus. *JAMA* 250:2666-2669, 1983
58. Strain JE, Grose RM, Factor SM, Fisher JD: Endomyocardial biopsy results in patients with clinically normal hearts and spontaneous ventricular tachycardia. *Circulation* 68:1171-1181, 1983
59. Eng C, Cho S, Factor SM, Sonnenblick EH, Kirk ES: Myocardial micronecrosis produced by microsphere embolization. Role of an alpha adrenergic tonic influence of the coronary microcirculation. *Circ Res* 54:74-82, 1984
60. Rose AG, Halper J, Factor SM: Pulmonary arteriopathy in Takayasu's disease. *Arch Pathol Lab Med* 108:664-648, 1984
61. Factor SM, Minase T, Cho S, Fein F, Capasso JM, Sonnenblick EH: Coronary microvascular abnormalities in the hypertensive-diabetic rat. A cause of cardiomyopathy? *Am J Pathol* 116:9-20, 1984
62. Halper J, Factor SM: Coronary lesions in neurofibromatosis associated with presumptive coronary spasm and fatal myocardial infarction. *Am Heart J* 108:420-422, 1984
63. Fein FS, Capasso JM, Aronson RS, Cho S, Nordin C, Miller-Green B, Sonnenblick EH, Factor SM: Combined renovascular hypertension and diabetes in rats: a new preparation of congestive cardiomyopathy. *Circulation* 70:318-330, 1984
64. Gabbay S, Bortolotti U, Cipolletti G, Wasserman F, Frater RWM, Factor SM: The Meadox unicus pericardial bioprosthesis heart valve: new concept. *Ann Thorac Surg* 37:448-456, 1984
65. Gabbay S, Bortolotti U, Factor S, Shore DF, Frater RWM: Calcification of implanted xenograft pericardium influence of site and function. *J Thorac Cardiovasc Surg* 87:782-787, 1984

Stephen M. Factor, M.D.

66. Gabbay S, Bortolotti U, Wasserman F, Factor S, Strom J, Frater RWM: Fatigue-induced failure of the Ionescu-Shiley pericardial xenograft in the mitral position: in vivo and in vitro correlation and a proposed classification. *J Thorac Cardiovasc Surg* 87:836-844, 1984
67. Gabbay S, Bortolotti U, Wasserman F, Tindel N, Factor SM, Frater RWM: Long-term follow-up of the Ionescu-Shiley mitral pericardial xenograft. *J Thorac Cardiovasc Surg* 88:758-763, 1984
68. Sonnenblick EH, Factor SM: Heterogeneous transmural blood flow and microvascular spasm as causes of heart failure in ischemic heart disease and cardiomyopathies. In, *REGULATION OF CARDIAC FUNCTION*, (eds. H Abe, Y Ito, M Tada, LH Opie). Japan Scientific Society Press, Tokyo, 1984, pp 191-196
69. Gabbay S, Bortolotti U, Wasserman F, Factor SM: Haemodynamics and durability of mitral bioprostheses-an in vitro study. *Eur Heart J* 5 (suppl D):65-71, 1984
70. Kirk ES, Factor S, Sonnenblick EH: Newer concepts in the pathophysiology of ischemic heart disease. *G Ital Cardiol* 4:881- 891, 1984
71. Robinson TF, Cohen-Gould L, Remily RM, Capasso JM, Factor SM: Extra-cellular structures in heart muscle. *Adv Myocardiol* 5:243-255, 1985
72. Sonnenblick EH, Factor SM: Microvascular spasm as a cause of cardiomyopathies and the calcium blocking agent (verapamil) as potential primary therapy. *Am J Cardiol* 55:179-184, 1985
73. Forman R, Cho S, Factor SM, Kirk ES: Lateral border zone: quantitation of lateral extension of subendocardial infarction in the dog. *J Am Coll Cardiol* 5:1125-1131, 1985
74. Factor SM, Cho S, Wittner M, Tanowitz H: Abnormalities of the coronary microcirculation in acute murine Chagas' disease. *Am J Trop Med Hyg* 34:246-253, 1985
75. Sole MJ, Factor SM: Hamster cardiomyopathy: A genetically transmitted sympathetic dystrophy. In, *PATHOGENESIS OF STRESS- INDUCED HEART DISEASE*, (eds. RE Beamish, V Panagia, NS Dhalla). Martinus Nijhoff Publishing, Boston, 1985, pp 34-43
76. Jones JG, Factor SM: Familial congestive cardiomyopathy with nemaline rods in heart and skeletal muscle. *Virch Arch Pathol A* 408:307-312, 1985
77. Factor SM, Cho S: Smooth muscle contraction bands in the media of coronary arteries: a post-mortem marker of ante-mortem spasm? *J Am Coll Cardiol* 6:1329-1337, 1985
78. Brosnan CF, Goldmuntz EA, Cammer W, Factor SM, Bloom BR, Norton WT: Prazosin, an alpha-1-adrenergic receptor antagonist, suppresses experimental autoimmune encephalomyelitis in the Lewis rat. *Proc Natl Acad Sci* 82:5915-5919, 1985

Stephen M. Factor, M.D.

79. Factor SM, Kirk ES: Pathophysiology of myocardial ischemia. In, THE HEART, (ed. JW Hurst). 6th edition, Chap 44, McGraw Hill, NY, 1985, pp. 856-881
80. Factor SM, Sonnenblick EH: The pathogenesis of clinical and experimental congestive cardiomyopathies: Recent concepts. *Prog Cardiovasc Dis* 27:395-420, 1985
81. Factor SM: The diagnostic usefulness of right ventricular endomyocardial biopsy. *Heart Failure* 2:56-63, 1986
82. Mancini DM, LeJemtel TH, Factor S, Sonnenblick EH: The central and peripheral components of heart failure. *Am J Med* 80:2-13, 1986
83. Gelman KM, Ben-Ezra JM, Steinschneider M, Keefe DL, Dutcher J, Factor SM: Primary cardiac lymphoma. *Am Heart J* 111:808-811, 1986
84. Bier A, Jones J, Lazar E, Factor S, Keefe D: Endocarditis of a tricuspid prosthesis causing valvular stenosis and shunting through a patent foramen ovale. *Chest* 90:293-295, 1986
85. Robinson TF, Factor SM, Sonnenblick EH: The heart as a dynamic suction pump. A reappraisal of the classic Frank-Starling law of the heart. *Sci Am* 254:84-91, 1986
86. Bortolotti U, Gallo JI, Gabbay S, Factor SM, Sisto D, Frater RWM: Replacement of mitral valve chordae with autologous pericardium in dogs. *Thorac Cardiovasc Surg* 32:15-17, 1986
87. Vetter HO, Burack JH, Factor SM, Macaluso MA, Frater RWM: Replacement of chordae tendineae of the mitral valve using the new expanded PTFE-suture in sheep. In, BIOLOGICAL AND BIOPROSTHETIC VALVES, (eds. R Bodnar, M Yacoub). York Medical Books, NY, 1986, pp 772-784
88. Gallo I, Nistal F, Fernandez D, Factor SM, Frater RWM: Comparative study of T6-treated and standard Hancock-I porcine xenografts. Experimental study in weanling sheep. *Thorac Cardiovasc Surg* 34:310-315, 1986
89. Bortolotti U, Zussa C, Factor S, Frater RWM: Glutaraldehyde treated auto, homo, and xenograft pericardium in atrial, mitral, aortic and pericardial applications. *Life Supp Syst* 4 (suppl 2):148-150, 1986
90. Aretz HT, Billingham ME, Edwards WD, Factor S, Fallon JT, Fenoglio JJ Jr, Olsen EGJ, Schoen F: Myocarditis: a histopathologic definition and classification. *Am J Cardiovasc Pathol* 1:3-14, 1987
91. Factor SM, Robinson TF, Dominitz R, Cho S: Alterations of the myocardial skeletal framework in acute myocardial infarction with and without ventricular rupture. *J*

Stephen M. Factor, M.D.

Cardiovasc Pathol 1:91-98, 1987

92. Eng C, Cho S, Factor SM, Kirk ES: A non-flow basis for the vulnerability of the subendocardium. *J Am Coll Cardiol* 9:374- 379, 1987
93. Vetter HO, Factor SM, Frater RWM: The use of glycerol-treated homologous pericardium as a substitute for cusps and chordae tendineae of the mitral valve in sheep. *Thorac Cardiovasc Surg* 35:11-15, 1987
94. Factor SM: Pathology and pathophysiology of the coronary microcirculation in myocardial ischemia. In, *THE STRESSED HEART*, (ed. MJ Legato). Martinus Nijhoff Publishing, Boston, 1987, pp 127-147
95. Robinson TF, Factor SM, Capasso JM, Wittenberg BA, Blumenfeld 00, Seifter S: Morphology, composition and function of struts between cardiac myocytes of rat and hamster. *Cell Tiss Res* 249:247-255, 1987
96. Cohen-Gould L, Robinson, TF, Factor SM: Intrinsic connective tissue abnormalities in the heart muscle of cardiomyopathic Syrian hamsters. *Am J Pathol* 127:327-334, 1987
97. Conway RS, Factor SM, Sonnenblick EH, Baez S: Microvascular reactivity of the myopathic Syrian hamster cremaster muscle. *Cardiovasc Res* 21:796-803, 1987
98. Kim KK, Factor SM: Membranoproliferative glomerulonephritis and plexogenic pulmonary arteriopathy in a homosexual AIDS patient: Case Report. *Hum Pathol* 18:1293-1296, 1987
99. Zhao M, Zhang H, Robinson TF, Factor SM, Sonnenblick H, Eng C: Profound structural alterations of the extracellular collagen matrix in post-ischemic dysfunctional ("stunned") but viable myocardium. *J Am Coll Cardiol* 10:1322-1334, 1987
100. Morris SA, Tanowitz H, Factor SM, Bilezikian JP, Wittner M: Myocardial adenylate cyclase activity in acute murine Chagas' disease. *Circ Res* 62:800-810, 1988
101. Factor SM, Robinson TF: Comparative connective tissue structure-function relationships in biologic pumps. *Lab Invest* 58:150-156, 1988
102. Factor SM, Sonnenblick EH: Microvascular spasm in the cardiomyopathic Syrian hamster as a cause of focal necrosis and myocardial failure. In, *PATHOGENESIS OF MYOCARDITIS AND CARDIOMYOPATHY: RECENT EXPERIMENTAL AND CLINICAL STUDIES*, (eds. C Kawai, WH Abelmann). Columbia University Press, NY, 1988, pp 63-78
103. Buttrick P, Malhotra A, Factor S, Geenen D, Scheuer J: The effects of chronic dobutamine administration on the normal and hypertensive rat heart. *Circ Res*

Stephen M. Factor, M.D.

63:173-181, 1988

104. Shanlin RJ, Sole MJ, Rahimifar M, Tator CH, Factor SM: Increased intracranial pressure elicits hypertension, increased sympathetic activity, electrocardiographic abnormalities and myocardial damage in rats. *J Am Coll Cardiol* 12:727-736, 1988
105. Factor SM, Malhotra A, Cho S, Scheuer J, Sonnenblick EH, Capasso JM: Prevention of hereditary cardiomyopathy in the Syrian hamster with chronic verapamil therapy. *J Am Coll Cardiol* 12:1599-1604, 1988
106. Robinson TF, Cohen-Gould L, Factor SM, Eghbali M, Blumenfeld 00: Structure and function of connective tissue in cardiac muscle: Collagen type I and III in endomysial struts and pericellular fibers. *Scan Microsc* 2:1005-1015, 1988
107. Jones JG, Cho S, Factor SM: The anatomy and pathophysiology of the microvasculature in different organs: relationship to vasculogenic necrosis and tissue damage. In, *METHODS AND ACHIEVEMENTS IN EXPERIMENTAL PATHOLOGY*, (ed. G. Jasmin). Vol. 13, Karger, Basel, 1988, pp 114-143
108. Robinson TF, Geraci MA, Sonnenblick EH, Factor SM: Coiled perimysial fibers of papillary muscle in rat heart; morphology, distribution, and changes in configuration. *Circ Res* 63:577-592, 1988
109. Factor SM, Flomenbaum M, Zhao M-J, Eng C, Robinson TF: The effects of acutely increased ventricular cavity pressure on intrinsic myocardial connective tissue. *J Am Coll Cardiol* 12:1582-1589, 1988
110. Rose AG, Novitzky D, Factor SM: Spasm-induced smooth muscle contraction bands in the media of coronary arteries: an experimental study in baboons. *Am J Cardiovasc Pathol* 2:63-67, 1988
111. Gabbay S, Kadam P, Factor S, Cheung TK: Do heart valve bioprostheses degenerate for metabolic or mechanical reasons? *J Thor Cardiovasc Surg* 95:208-215, 1988
112. Sonnenblick EH, Factor SM, Eng C, LeJemtel TH, Anversa P: The primary etiology of heart failure: Myocyte loss, reactive hypertrophy, dynamic ischemia, and ventricular wall remodelling. In, *CARDIAC AND RENAL FAILURE: AN EXPANDING ROLE FOR ACE INHIBITORS*, (eds. CT Dollery, LM Sherwood). Hanley and Belfus, Inc., Philadelphia, PA, 1988
113. Factor SM: Pathophysiology of myocardial ischemia. In, *THE HEART*, (ed. JW Hurst). 7th edition, Chap 49, 1989
114. Sonnenblick EH, LeJemtel TH, Eng C, Zhao M, Factor SM, Anversa P: The relationship of dynamic ischemia, ventricular wall remodeling, and reactive hypertrophy to the development of cardiomyopathies: pathophysiological and therapeutic considerations. In,

Stephen M. Factor, M.D.

NEW FRONTIERS IN CARDIOVASCULAR THERAPY: FOCUS ON ANGIOTENSIN CONVERTING ENZYME INHIBITIONS, (eds. EH Sonnenblick, JH Laragh, M Lesch). Excerpta Medica, NJ, 1989, pp 167-175

115. Fein FS, Cho S, Zola BE, Miller B, Factor SM: Cardiac pathology in the hypertensive-diabetic rat: bi-ventricular damage with right ventricular predominance. *Am J Pathol* 134:1159-1166, 1989
116. Flomenbaum M, Soeiro R, Udem SA, Kress Y, Factor SM: Proliferative membranopathy and human immunodeficiency virus in AIDS hearts. *J Acq Imm Def Synd* 2:129-135, 1989
117. LeJemtel TH, Factor SM, Forman R: Circulating neurohumoral factors may alter vascular structures in congestive heart failure. *Heart Failure* 5:29-35, 1989
118. Factor SM: Editorial: Acquired immune deficiency syndrome: the heart of the matter. *J Am Coll Cardiol* 13:1037-1038, 1989
119. van Hoeven KH, Factor SM: Diabetic heart disease: the clinical and pathological spectrum-Part I. *Clin Cardiol* 12:600-604, 1989
120. van Hoeven KH, Factor SM: Diabetic heart disease: the clinical and pathological spectrum-Part II. *Clin Cardiol* 12:667-671, 1989
121. Tanowitz HB, Morris SA, Weiss LM, Bilezikian JP, Factor SM, Wittner M: Effect of verapamil on the development of chronic experimental Chagas' disease. *Am J Trop Med Hyg* 41:651-657, 1989
122. van Hoeven KH, Factor SM: Pathology of the cardiac collagen matrix: mechanical and functional effects. In, *CARDIAC MECHANICS AND FUNCTION IN THE NORMAL AND DISEASED HEART*, (eds. M Hori, H Suga, J Baan, EL Yellin). Springer-Verlag, Tokyo, 1989, pp. 45-53
123. Morris SA, Weiss L, Factor SM, Bilezikian JP, Tanowitz H, Wittner M: Verapamil ameliorates clinical, pathological and biochemical manifestations of experimental Chagasic cardiomyopathy in mice. *J Am Coll Cardiol* 14:782-789, 1989
124. Siri FM, Nordin C, Factor SM, Sonnenblick EH, Aronson R: Compensatory hypertrophy and failure in general pressure overloaded guinea pig heart. *Am J Physiol* 257:H1016-H1024, 1989
125. Sonnenblick EH, Zhao M, Eng C, LeJemtel TH, Factor SM, Anversa P: ACE inhibitors in acute and chronic ischemia: Current Status and Future Promise. *Brit J Clin Pharmacol* 280:1595-1655, 1989
126. Fein FS, Zola BE, Malhotra A, Cho S, Factor SM, Scheuer J, Sonnenblick EH:

Stephen M. Factor, M.D.

Hypertensive-diabetic cardiomyopathy in rats. *Am J Physiol* 258:H793-H805, 1990

127. van Hoeven KH, Factor SM: Endomyocardial biopsy diagnosis of small vessel disease: a clinicopathological study. *Int J Cardiol* 26:103-110, 1990
128. Takahashi S, Barry AC, Factor SM: Collagen degradation in acute myocardial infarction in rats. *Biochem J* 265:233-241, 1990
129. Dahm M, Lyman WD, Schwell AB, Factor SM, Frater RWM: Immunogenicity of glutaraldehyde-tanned bovine pericardium. *J Thorac Cardiovasc Surg* 99:1082-1090, 1990
130. Factor SM: Pathological alterations of myocyte-connective tissue interactions in cardiovascular diseases: structure-function relationships. In, *CARDIAC MYOCYTE-CONNECTIVE TISSUE INTERACTIONS IN HEALTH AND DISEASE*, (eds. TF Robinson, RHK Kinne). Karger, Basel, 1990, pp. 130-146
131. Factor SM: (Editorial): Borderline myocarditis on initial endomyocardial biopsy: no man's land no more? *J Am Coll Cardiol* 15:290-291, 1990
132. van Hoeven KH, Reed LJ, Factor SM: Autopsy documented cure of multiple myeloma fourteen years after M2 chemotherapy. *Cancer* 66:1472-1474, 1990
133. van Hoeven KH, Factor SM: A comparison of the pathological spectrum of hypertensive, diabetic, and hypertensive-diabetic heart disease. *Circulation* 82:848-855, 1990
134. Advani SV, Gennen D, Malhotra A, Factor SM, Scheuer J: Swimming causes myosin adaptations in the rat cardiac isograft. *Circ Res* 67:780-783, 1990
135. van Hoeven KH, Segal B, Factor SM: AIDS cardiomyopathy: first rule out other myocardial risk factors. *Int J Cardiol* 29:35-37, 1990
136. Tanowitz HB, Burns ER, Sinha A, Kahn N, Morris SA, Factor SM, Hatcher VB, Bilezikian JP, Baum SG, Wittner M: Enhanced platelet adherence and aggregation in Chagas' disease: a potential pathogenic mechanism for cardiomyopathy. *Am J Trop Med Hyg* 42:274-281, 1990
137. Factor SM, van Hoeven, KH, Fein FS: The pathology of clinical and experimental diabetic cardiomyopathy. *Fund Clin Pharmacol* 4 (suppl 1):245, 1990
138. Factor SM, Butany J, Sole MJ, Wigle ED, Williams WC, Rojkind M: Pathological fibrosis and matrix connective tissue in the subaortic myocardium of patients with hypertrophic cardiomyopathy. *J Am Coll Cardiol* 17:1343-1351, 1991
139. Factor SM, van Hoeven KH, Cho S, Fein FS: Microangiopathy and focal myocardial injury: Their role in the development of diabetic cardiomyopathy. In, *THE DIABETIC HEART*,

Stephen M. Factor, M.D.

(eds. M Nagano, NS Dhalla). Raven Press, NY, 1991, pp. 89-101

140. van Hoeven KH, Factor SM: The diabetic heart: clinical, experimental, and pathological features. *Acta Cardiol* 46:329- 339, 1991
141. Pirofski L, Horwitz MS, Scharff MD, Factor SM: Murine adenovirus infection of SCID mice induces hepatic lesions that resemble human Reye's syndrome. *Proc Natl Acad Sci* 88:4358-4362, 1991
142. Fein FS, Cho S, Malhotra A, Akella J, van Hoeven KH, Scheuer J, Sonnenblick EH, Factor SM: Beneficial effects of diltiazem on the natural history of hypertensive-diabetic cardiomyopathy in rats. *J Amer Coll Cardiol* 18:1406-1417, 1991
143. Buttrick P, Malhotra A, Factor SM, Geenan D, Leinwand L, Scheuer J: Effect of aging and hypertension on myosin biochemistry and gene expression in rat heart. *Circ Res* 68:645-652, 1991
144. Gong G, Ling Z, Seifter E, Factor SM, Frater RWM: Aldehyde tanning: the villain in bioprosthetic calcification. *Eur J Cardiothorac Surg* 5:288-293, 1991
145. Factor SM: (Editorial): Cardiovascular Pathology: A new journal for an old need. *Cardiovasc Pathol* 1:1-2, 1992
146. Fabry ME, Fine E, Rajanayagam V, Factor SM, Gore J, Sylla M, Nagel RL: Demonstration of endothelial adhesion of sickle cells *in vivo*: A distinct role for deformable SS discocytes. *Blood* 79:1602-1611, 1992
147. Factor SM, Segal BH, van Hoeven KH: Diabetes and coronary artery disease. *Cor Art Dis* 3:4-10, 1992
148. Liao K, Seifter E, Factor SM, Yellin EL, Frater RWM: Diphenylhydantoin inhibits calcification of bovine pericardial implants and myocardium. *J Surg Res* 53:349-356, 1992
149. Tanowitz HB, Gumprecht JP, Surr D, Calderon TM, Ventura MC, Raventos-Suarez C, Kellie S, Factor SM, Hatcher VB, Wittner M, Berman JW: Cytokine gene expression of endothelial cells infected with *Trypanosoma cruzi*. *J Inf Dis* 166:598-603, 1992
150. Factor SM, Menegus MA, Kress Y, Cho S, Fisher JD, Sakai LY, Goldfischer S: Microfibrillar cardiomyopathy: A new entity resembling cardiac amyloidosis. *Cardiovasc Pathol* 1:307-316, 1992
151. Tanowitz HB, Morris SA, Factor SM, Weiss LM, Wittner M: Parasitic diseases of the heart. I. Acute and chronic Chagas' disease. *Cardiovasc Pathol* 1:7-16, 1992
152. Schwartz DS, Factor SM, Schwartz JD, Blitz A, McLoughlin D, Tellis V, Frame R, Brodman RF: Histologic evaluation of the inferior epigastric artery in patients with known

Stephen M. Factor, M.D.

atherosclerosis. *Eur J Cardiothorac Surg* 6:438-441, 1992

153. Fabry ME, Costantini F, Pachnis A, Suzuka SM, Bank N, Aynedjian HS, Factor SM, Nagel RL: High expression of human β^s and/- globins in transgenic mice: Erythrocyte abnormalities, organ damage, and the effect of hypoxia. *Proc Natl Acad Sci* 89:12155-12159, 1992
154. Offen D, Spatz L, Escowitz H, Factor S, Diamond B: Induction of tolerance to an IgG autoantibody. *Proc Natl Acad Sci* 89:8332- 8336, 1992
155. Schwartz DS, Factor SM, Schwartz JD, Blitz A, McLoughlin D, Tellis V, Frame R, Brodman RF: Histologic evaluation of the inferior epigastric artery in patients with known atherosclerosis. *Eur J Cardiothorac Surg* 6:438-441, 1992
156. Bache R, Factor SM: Pathophysiology of Myocardial Ischemia. In, *THE HEART*, (ed. JW Hurst). 8th Edition, Chap 47, 1993
157. Factor SM: Microcirculation in the cardiomyopathic Syrian hamster and in human congestive cardiomyopathy. *Proceedings of the International Symposium on Idiopathic Dilated Cardiomyopathy, Molecular and Structural Mechanisms, Clinical Consequences. Idiopathic Dilated Cardiomyopathy*, (eds. Figulla et al). Springer-Verlag, Berlin, 1993, pp 165-175
158. Factor SM, Tanowitz H, Wittner M, Ventura MC: Interstitial connective tissue matrix alterations in acute murine Chagas' disease. *Clin Immunol Immunopathol* 68:147-152, 1993
159. Zhao M, Factor SM, Eng C: Stunned myocardium in models of repeated coronary occlusion. In, *STUNNED MYOCARDIUM: BASIC AND CLINICAL ASPECTS*, (eds. R Kloner, K Przyklenk). Marcel Dekker, NY, 1993, pp. 71-91
160. van Hoven KH, Kitsis RN, Katz SD, Factor SM: Peripartum versus idiopathic dilated cardiomyopathy in young women - clinical, pathologic and prognostic features. *Int J Cardiol* 40:57-65, 1993
161. Segal BH, Factor SM: Myocardial risk factors other than human immunodeficiency virus infection contribute to cardiomyopathy in acquired immune deficiency syndrome. *Mod Pathol* 6:560-564, 1993
162. Gong G, Lyman WD, Factor SM, Frater RWM: Bioprosthetic cardiac valve degeneration: A role for the immune system. *J Heart Valve Dis* 2:684-693, 1993
163. Liao L, Sindhvani R, Leinwand L, Diamond B, Factor S: Cardiac alpha-myosin heavy chains differ in their induction of myocarditis. Identification of pathogenic epitopes. *J Clin Invest* 90:2877-2882, 1993

Stephen M. Factor, M.D.

164. van Hoeven KH, Factor SM, Kress Y, Woodruff JM: Visceral myogenic tumors. A manifestation of HIV infection in children. *Am J Surg Pathol* 17:1176-1181, 1993
165. LeJemtel TH, Eikayam U, Costanzo-Nordin MR, Sole M, Factor SM: Peripartum cardiomyopathy: A human model of reversible left ventricular dilatation. *Heart Failure* 9(2):63-68, 1993
166. Factor SM: Role of the extracellular matrix in dilated cardiomyopathy. *Heart Failure* 9:260-268, 1993
167. Meisner JS, Daboin NA, Keller P, Sisto D, Factor SM, Strom JA: Myxoma of the mitral valve detected by transesophageal echocardiography. *Am Heart J* 125:1449-1451, 1993
168. Eng C, Zhao M, Factor SM, Sonnenblick EH: Post-ischemic cardiac dilatation and remodeling: reperfusion injury of the interstitium. *Eur Heart J* 14 (suppl A):27-32, 1993
169. Lonn E, Factor SM, Wen WH, Zhao M, van Hoeven KH, Dawood F, Liu P: Effects of oxygen free radicals and scavengers on the cardiac extracellular collagen matrix during ischemia-reperfusion. *Canad J Cardiol* 10:203-213, 1994
170. Calderon TM, Factor SM, Hatcher VB, Berliner JA, Berman JW: An endothelial cell adhesion protein for monocytes recognized by monoclonal antibody IG9: expression *in vivo* in inflamed human vessels and atherosclerotic human and Watanabe rabbit vessels. *Lab Invest* 70(6):836-849, 1994
171. Factor SM: In, NOMENCLATURE AND CRITERIA FOR DIAGNOSIS OF DISEASE OF THE HEART AND GREAT VESSELS, Ninth Edition, New York Heart Association (member of Criteria Committee, Cardiac Pathology) 1994
172. Factor SM: The collagen matrix of the normal and failing heart. *Cardio* 11:44-49, 1994
173. Reyes AT, Kantrowitz AB, Issenberg HJ, Factor SM, Frame R, Brodman RF: Use of neurosurgical techniques for removal of a cardiac tumor. *Ann Thorac Surg* 57:741-743, 1994
174. Kosierkiewicz TA, Factor SM, Dickson DW: Immunocytochemical studies of atherosclerotic lesions of cerebral berry aneurysms. *J Neuropathol Exp Neurol* 53:399-406, 1994
175. Liu S-k, Chiu YT, Shyu JJ, Factor SM, Chu R, Lin JH, Hsou HL, Fox PR, Yang PC: Hypertrophic cardiomyopathy in pigs: quantitative pathologic features in 55 cases. *Cardiovasc Pathol* 3(4):261-268, 1994
176. Dickson DW, Davies P, Bevona C, Van Hoeven KH, Factor SM, Grober E, Aronson MK,

Stephen M. Factor, M.D.

- Crystal HA: Hippocampal sclerosis: a common pathological feature of dementia in very old (≥80 years of age) humans. *Acta Neuropathol* 88:212-221, 1994
177. Trupkiewicz JG, McNamara TS, Cook RA, Grenell SL, Weidenheim KM, Factor SM: Cerebral infarction associated with coarctation of the aorta in a lowland gorilla (gorilla, gorilla). *J Zoo Wildlife Med* 26:123-131, 1995
 178. Factor SM: (Editorial): Cardiovascular Pathology: From whence we came ... to where we are going. *Cardiovasc Pathol* 4(4):233-234, 1995
 179. Hassankhani A, Steinhilber ME, Soonpaa MH, Katz EB, Taylor DA, Andrade-Rozental A, Factor SM, Steinberg JJ, Field LJ, Federoff HJ: Overexpression of NGF within the heart of transgenic mice causes hyperinnervation, cardiac enlargement, and hyperplasia of ectopic cells. *Develop Biol* 169:309-321, 1995
 180. Mason JW, O'Connell JB, Herskowitz A, Rose NR, McManus BM, Billingham ME, Moon TE, and the Myocarditis Treatment Trial Investigators (Factor SM): A clinical trial of immunosuppressive therapy for myocarditis. *NEJM* 333(5):269-275, 1995
 181. Tanowitz HB, Factor SM, Morris SA, Spray DC, Huang H, Chen B, Campos de Carvalho AC, Saez J, Christ GJ, Weiss LM, Wittner M: Myopathogenesis of Chagas. *BAM* 5(3):261-280, 1995
 182. Vikstrom KL, Factor SM, Leinwand LA: A murine model for hypertrophic cardiomyopathy. *Z Kardiol* 84(Suppl 4):49-54, 1995
 183. Fabry ME, Sengupta A, Suzuka SM, Constantini F, Rubin EM, Hofrichter J, Christoph G, Mancie E, Factor SM, Nagel RL: A second generation transgenic mouse expressing both Hbs and Hbs-Antilles results in increased phenotypic severity. *Blood* 86:2419-2428, 1995
 184. Ioffe E, Bhaumik M, Liu Y, Poirer F, Factor S, Robertson EJ, Stanley P: WW6: an embryonic stem cell line that can be tracked in chimeras. *Proc Natl Acad Sci* 92:7357-7361, 1995
 185. Liao L, Sindhvani R, Rojkind M, Factor S, Leinwand L, Diamond B: Antibody-mediated autoimmune myocarditis depends on genetically determined target organ sensitivity. *J Exp Med* 181:1123-1131, 1996
 186. Tanowitz HB, Kaul DK, Chen B, Morris SA, Factor SM, Weiss LM, Wittner M: *Trypanosoma cruzi*: compromised microcirculation in acute murine *Trypanosoma cruzi* infection. *J Parasitol* 82:124-130, 1996
 187. d'Amati G, Factor SM: Endomyocardial biopsy findings in patients with ventricular arrhythmias of unknown origin and no structural heart disease. *Cardiovasc Pathol* 5:139-144, 1996

Stephen M. Factor, M.D.

188. Edwards JG, Lyons GF, Micales BK, Malhotra A, Factor SM, Leinwand LA: Cardiomyopathy in transgenic MYF5 mice. *Circ Res* 78:379-387, 1996
189. Abadi M, Stephney G, Factor SM: Cardiac pentastomiasis and tuberculosis: The worm-eaten heart: *Cardiovasc Pathol* 5:169-174, 1996
190. Factor SM, Wittner M, Tanowitz HB: Chagas' disease: Microvascular and interstitial matrix abnormalities characteristic of congestive cardiomyopathy of diverse etiology. *Cardiovasc Pathol* 5:203-208, 1996
191. Concepcion L, Markowitz GS, Borczuk AC, Factor SM: Comparison of changing autopsy trends in the Bronx AIDS population. *Mod Pathol* 9(10):1001-1006, 1996
192. Vikstrom KL, Factor SM, Leinwand LA: Mice expressing mutant myosin heavy chains are a model for familial hypertrophic cardiomyopathy. *Molec Med* 2(5):556-567, 1996
193. Factor SM, Borczuk A, Charron MJ, Fein FS, van Hoeven KH, Sonnenblick EH: Myocardial alterations in diabetes and hypertension. *Diab Res Clin Prac* 31:Suppl S133-S142, 1996
194. Markowitz GS, Concepcion L, Factor SM, Borczuk AC: Autopsy patterns of disease among subgroups of an inner-city Bronx AIDS population. *J Acq Imm Def Synd Hum Retrovirol* 13:48-54, 1996
195. van Hoeven KH, Anyaegbunam A, Hochster H, Matano S, Whitty E, Distant J, Crawford C, Factor SM: The histologic threshold for acute chorionitis and chorioamnionitis, its relation to acute funisitis, and its clinical significance. *Lab Med* 16:731-744, 1996
196. Borczuk A, Factor SM: Pathologic alterations of the heart in diabetes mellitus. In, *THE HEART IN DIABETES*, (eds. JC Chathan, J Forder, JH McNeill). Kluwer Academic Publishers, Chap 2, 1996, pp 23-40
197. McNamara TS, Lucio-Martinez B, Factor SM, Kress Y: Investigation of a herpes viral infection in three species of pheasants. *Proceedings, Am Assn Zoo Vet* 169-171, 1996
198. Factor SM, Bache R: Pathophysiology of myocardial ischemia. In, *THE HEART*, (ed. Hurst JW), 9th edition, Chap 43, 1997
199. Borczuk AC, Berman JW, Factor SM: Distribution of endothelin immunoreactivity in human kidney correlates with antemortem acute renal failure. A possible portmortem immunohisto-chemical test. *Human Pathol* 28:193-199, 1997
200. Edelman M, Silverstein D, Strom J, Factor SM: Cardiomyopathy in a male with cytsinosis. *Cardiovasc Pathol* 6:43-47, 1997

Stephen M. Factor, M.D.

201. Borczuk AC, van Hoeven KH, Factor SM: Review and hypothesis: The eosinophil and peripartum heart disease (myocarditis and coronary artery dissection): coincidence or pathological significance? *Cardiovasc Res* 33:527-532, 1997
202. Kaufer E, Factor SM, Frame R, Brodman RF: Pathology of the radial and internal thoracic arteries used as coronary artery bypass grafts. *Ann Thorac Surg* 63:1118-1122, 1997
203. Shirani J, Bradlow JA, Metveyeva P, Losada M, Factor SM, Strom JA, Sisto D: Transient loss of vision as the presenting symptom of papillary fibroelastoma of aortic valve. *Cardiovasc Pathol* 6:237-240, 1997
204. Stenbit AE, Tsao T-S, Burcelin R, Li J, Geenen DL, Factor SM, Brosius FC III, Killen P, Houseknecht, Katz EB, Charron MJ: GLUT4 heterozygous knockout mice develop muscle insulin resistance and diabetes. *Nature Med* 3:1096-1101, 1997
205. Siri F, Malhotra A, Factor SM, Sonnenblick EH, Fein FS: Prolonged ejection duration helps to maintain pump performance of the renal-hypertensive-diabetic rat heart: correlations between isolated papillary muscle function and ventricular performance in situ. *Cardiovasc Res* 34:230-240, 1997
206. Yao L, Berman JW, Factor SM, Lowy FD: Correlation of histopathologic and bacteriologic changes with cytokine expression in an experimental model of bacteremic *Staphylococcus aureus* infection. *Infect Immunol* 65:3889-3895, 1997
207. Huang H, Chan J, Wittner M, Weiss LM, Bacchi CJ, Yarlett N, Martinez M, Morris SA, Braunstein VL, Factor SM, Tanowitz HB: *Trypanosoma cruzi* infection induces myocardial nitric oxide synthase. *Cardiovasc Pathol* 6(3):161-166, 1997
208. Markowitz GS, Factor SM, Borczuk AC: Splenic para-amyloid material. A possible vasculopathy of the acquired immunodeficiency syndrome. *Human Pathol* 29:371-376, 1998
209. Tardiff JC, Factor SM, Tompkins BD, Hewett TE, Palmer BM, Moore RL, Schwartz S, Robbins J, Leinwand LA: A truncated cardiac troponin T molecule in transgenic mice suggests multiple cellular mechanisms for familial hypertrophic cardiomyopathy. *J Clin Invest* 101:2800-2811, 1998
210. Yao S-S, Meisner JS, Factor SM, Frank CW, Strom JA, Shirani J: Assessment of left atrial appendage structure and function by transesophageal echocardiography. *Echocardiography* 15:243-256, 1998
211. Lee P, Morley G, Huang Q, Fischer A, Seiler S, Horner JW, Factor S, Vaidya D, Jalife J, Fishman GI: Conditional lineage ablation to model human diseases. *Proc Natl Acad Sci* 95:11371-11376, 1998

Stephen M. Factor, M.D.

212. Vikstrom KL, Bohlmeier T, Factor SM, Leinwand LA: Hypertrophy, pathology, and molecular markers of cardiac pathogenesis. *Circ Res* 82:773-778, 1998
213. Borczuk AC, Niedt G, Sablay LB, Kress Y, Mannion CM, Factor SM, Tanaka KE: Fibrous long-spacing collagen in bacillary angiomatosis. *Ultrastruct Pathol* 22(2):127-133, 1998
214. Jelicks LA, Shirani S, Wittner M, Chandra M, Weiss LM, Factor SM, Bekirov I, Braunstein VL, Chan J, Huang H, Tanowitz HB: Application of cardiac gated magnetic resonance imaging in murine Chagas= disease. *Am J Trop Med Hyg* 61(2):207-214, 1999
215. Tardiff JC, Hewett TE, Palmer BM, Olsson C, Factor SM, Moore RL, Robbins J, Leinwand LA: Cardiac troponin T mutations result in allele-specific phenotypes in a mouse model for hypertrophic cardiomyopathy. *J Clin Invest* 104(4):469-481, 1999
216. Huang H, Chan J, Wittner M, Jelicks LA, Morris SA, Factor SM, Weiss LM, Braunstein VL, Bacchi CJ, Yarlett N, Chandra M, Shirani J, Tanowitz HB: Expression of cardiac cytokines and inducible form of nitric oxide synthase (NOS2) in *Trypanosoma cruzi*-infected mice. *J Mol Cell Cardiol* 31:75-88, 1999
217. Tsao T-S, Stenbit AE, Factor SM, Chen W, Rossetti L, Charron MJ: Prevention of insulin resistance and diabetes in mice heterozygous for GLUT4 ablation by transgenic complementation of GLUT4 in skeletal muscle. *Diabetes* 48:775-782, 1999
218. Welikson RE, Buck SH, Patel JR, Moss RL, Vikstrom KL, Factor SM, Miyata S, Weinberger HD, Leinwand LA: Cardiac myosin heavy chains lacking the light chain binding domain cause cardiomyopathy in mice. *Am J Physiol-Heart Circ Physiol* 276:H2148-H2158, 1999
219. Tardiff JC, Hewett TE, Palmer BM, Olsson C, Factor SM, Moore RL, Robbins J, Leinwand, LA: Cardiac troponin T mutations result in allele-specific phenotypes in a mouse model for hypertrophic cardiomyopathy. *J Clin Invest* 104:469-481, 1999
220. Malkiel S, Factor S, Diamond B: Autoimmune myocarditis does not require B cells for antigen presentation. *J Immunol* 163:5265-5268, 1999
221. Kuan AP, Chamberlain W, Malkiel S, Lieu HD, Factor SM, Diamond B, Kotzin BL: Genetic control of autoimmune myocarditis mediated by myosin-specific antibodies. *Immunogenet* 49:79-85, 1999
222. Huang H, Chan J, Wittner M, Jelicks LA, Morris SA, Factor SM, et al: Expression of cardiac cytokines and inducible form of nitric oxide synthase (NOS2) in *Trypanosoma cruzi*-infected mice. *J Mol Cell Cardiol* 31(1):75088, 1999
223. Maisch B, Bultman B, Factor S, Grone H-J, Hufnagel G, Kawamura K, Kuhl U, Olsen E,

Stephen M. Factor, M.D.

- Pankuweit S, Virmani R: World Heart Federation consensus conferences= definition of inflammatory cardiomyopathy (myocarditis): Report from two expert committees on histology and viral cardiomyopathy. *Heartbeat* 4:3-4, 1999
224. Wu G, Markowitz GS, Li L, D=Agati VD, Factor SM, Geng L, Tibara S, Tuchman J, Cai Y, Park JH, van Adelsberg J, Hou H Jr., Kucherlapati R, Edelmann W, Somlo S: Cardiac defects and renal failure in mice with targeted mutations in *Pkd2*. *Nat Genet* 24(1):75-78, 2000
 225. Kardon D, Borczuk AC, Factor SM: Mechanism of pericardial expansion with cardiac enlargement. *Cardiovasc Pathol* 9:9-15, 2000
 226. Kuan AP, Zuckier L, Liao L, Factor SM, Diamond B: Immunoglobulin isotype determines pathogenicity in antibody-mediated myocarditis in naïve mice. *Circulation Res* 86:281-285, 2000
 227. Stenbit AE, Katz EB, Chatham JC, Gennen DL, Factor SM, Weiss RG, Tsao T-S, Malhotra A, Chacko VP, Ocampo C, Jelicks LA, Charron MJ: Preservation of glucose metabolism in hypertrophic GLUT4-null hearts. *Am J Physiol-Heart Circ Physiol* 279:H313-H318, 2000
 228. Tardiff JC, Hewett TE, Factor SM, Vikstrom KL, Robbins J, Leinwand LA: Expression of the beta (slow) -isoform of MHC in the adult mouse heart causes dominant-negative functional effects. *Am J Physiol-Heart Circ Physiol* 278:H412-H419, 2000
 229. Qui JG, Factor S, Chang TH, Knighton D, Nadel H, Levenson SM: Wound healing: captopril, an angiogenesis inhibitor, and *Staphylococcus aureus* peptidoglycan. *J Surg Res* 92:117-185, 2000
 230. Peuch A., Saint-Jore B, Merscher S, Russell RG, Cherif D, Sirotkin H, Xu H, Factor S, Kucherlapati R, Skoultschi AI: Normal cardiovascular development in mice deficient for 16 genes in 550 Kb of the velocardiofacial/DiGeorge syndrome region. *Proc Natl Acad Sci* 97:10090-10095, 2000
 231. Petkova SB, Tanowitz HB, Magazine HI, Factor SM, Chan J, Pestell RG, et al: Myocardial expression of endothelin-1 in murine *Trypanosoma cruzi* infection. *Cardiovasc Pathol* 9(5):257-265, 2000
 232. Factor SM: The cardiovascular pathology of diabetes mellitus. In, *Diabetes and Cardiovascular Disease. A Practical Primer* (ed. TD Giles). LSU Health Sciences center, 2000, pp 1-14
 233. Fabry ME, Suzuka SM, Weinberg RS, Lawrence C, Factor SM, Gilman JG, Costantini F, Nagel RL: Second generation knock-out sickle mice. The effect of HbF. *Blood* 97:410-418, 2001

Stephen M. Factor, M.D.

234. Fabry ME, Romero JR, Suzuka SM, Gilman JG, Feeling-Taylor A, Odunusi E, Factor S, Bouhassira EE, Lawrence C, Smithies O, Nagel RL: Hemoglobin C in transgenic mice: effect of Hbc expression from founders to full mouse globin knockouts. *Blood Cells Mol Dis* 26:331-347, 2001
235. Quinn A, Kosanke S, Fischetti VA, Factor SM, Cunningham MW: Induction of autoimmune recombinant streptococcal M protein. *Inf Immunol* 69:4072-4078, 2001
236. Petkova SB, Huang H, Factor SM, Pestell RG, Boumediene B, Jelicks LA, Weiss LM, et al: The role of endothelin in the pathogenesis of Chagas= disease. *Intl J Parasitol* 31:499-511, 2001
237. Mavi G, Qui J-G, Factor S, The EL, Leon W, Levenson SM: Local instillation of *Staphylococcus aureus* peptidoglycan at operation prevents wound healing impairment following trauma. *J Trauma* 51:728-735, 2001
238. Merscher S, Funke B, Epstein JA, Heyer J, Puech A, Lu MM, Xavier RJ, Demay MB, Russell RG, Factor S, Tokooya K, Jore BS, Lopez M, Pandita RK, Lia M, Carrion D, Xu H, Schorle H, Koble JB, Scambler P, Wynshaw-Boris A, Skoultsi AI, Morrow BE, Kucherlapati R: TBXI is responsible for cardiovascular defects in velo-cardiofacial/DiGeorge syndrome. *Cell* 104:619-629, 2001
239. Rose EA, Gelijns AC, Moskowitz AJ et al. (SM Factor Member of Study Group): Long-term use of a left ventricular assist device for end-stage heart failure. *N Engl J Med* 345:1435-1443, 2001
240. Factor SM: Letter from the Editor. *Cardiovasc Pathol* 10:265, 2001
241. Factor SM: The cardiovascular pathology of diabetes mellitus. *Cardiovasc Rev Rep* 22:660-664, 2001
242. Galvin JE, Hemric ME, Kosanke S, Factor SM, Cunningham MW, Quinn A: Induction of myocarditis and valvulitis in lewis rats by different epitopes of cardiac myosin and its implications in rheumatic carditis. *Am J Pathol* 160:297-306, 2002
243. Chandra M, Shirani J, Shtutin V, Weiss L, Factor SM, Petkova SB, Rojkind J, Dominguez-Rosales JA, Jelicks LA, Wittner M, Tanowitz HB: Cardioprotective effects of Verapamil on myocardial structure and function in a murine model of chronic *Trypanosoma cruzi* infection (Brazil strain): an echocardiographic study. *Intl J Parasitol* 32:207-215, 2002
244. Jelicks LA, Chandra M, Shtutin V, Petkova SB, Tang B, Christ GJ, Factor SM, Wittner M, Huang H, Douglas SA, Weiss LM, D'Orleans-Juste P, Shirani J, Tanowitz HB: Phosphoramidon treatment improves the consequences of Chagasic heart disease. *Clin Sci* 103(suppl 48):267S-271S, 2002

Stephen M. Factor, M.D.

245. Chandra M, Tanowitz HB, Petkova SB, Huang H, Weiss LM, Wittner M, Factor SM, Shtutin V, Jelicks LA, Chan J, Shirani J: Significance of inducible nitric oxide synthase in acute myocarditis caused by *Trypanosoma cruzi* (Tulahuen strain). *Intl J Parasitol* 32:897-905, 2002
246. Huang H, Yanagisawa M, Kisanuki YK, Jelicks LA, Chandra M, Factor SM, Wittner M, Weiss LM, Pestell RG, Shtutin V, Shirani J, Tanowitz HB: Role of cardiac myocyte-derived endothelin-1 on Chagasic cardiomyopathy: molecular genetic evidence. *Clin Sci* 103(suppl 48):263S-266S, 2002
247. Park DS, Woodman SE, Schubert W, Cohen AW, Frank PG, Chandra M, Shirani J, Razani B, Tang B, Jelicks LA, Factor SM, Weiss LM, Tanowitz HB, Lisanti MP: Caveolin-1/3 double-knockout mice are viable, but lack both muscle and non-muscle caveolae, and develop a severe cardiomyopathic phenotype. *Am J Pathol* 160(6):2207-2217, 2002
248. Tatar EL, Alderman MH, Factor SM, Cohen H, Trieger N: Serum homocysteine in men with controlled hypertension taking dihydropyridine calcium channel blockers. *Einstein Quart J Biol Med* 19:33-37, 2002
249. Woodman SE, Park DS, Cohen AW, Cheung M, Chandra M, Shirani J, Tang B, Jelicks LA, Kitsis RN, Christ GJ, Factor SM, Tanowitz HB, Lisanti MP: Caveolin-3 knock-out mice develop a progressive cardiomyopathy and show hyperactivation of the p42/44 MAP kinase cascade. *J Biol Chem* 277:38988-38997, 2002
250. Jelicks LA, Chandra M, Shirani J, Shtutin V, Tang B, Christ GJ, Factor SM, Wittner M, Huang H, Weiss LM, Mukherjee S, Bouzahzah B, Petkova SB, Teixeira MM, Douglas SA, Loredi ML, D'Orleans-Juste P, Tanowitz HB: Cardioprotective effects of phosphoramidon on myocardial structure and function in murine Chagas' disease. *Intl J Parasitol* 32:1487-1506, 2002
251. Tanowitz AB, Factor SM, Shirani J, Ilercil A, Wittner M, Scharfstein J, Kirchhoff LU: Recent developments in the pathology of Chagas' disease with emphasis on the cardiovascular system. In, *World Class Parasites* (Tyler KM, Miles MA, editors), Vol 7, Kluwer Academic Publishers, Boston, 2002, pp 81-96
252. Huang H, Petkova SV, Cohen AW, Bouzahzah B, Chan J, Zhou J-N, Factor SM, Weiss LM, Krishnamachary M, Mukherjee S, Wittner M, Kitsis RN, Pestell RG, Lisanti MP, Albanese C, Tanowitz HB: Activation of transcription factors (AP-1 and NF- κ B) in murine chagasic myocarditis. *Inf Immun* 71:2859-2867, 2003
253. Cohen AW, Park DS, Woodman SE, Williams TM, Chandra M, Shirani J, DeSouza AP, Kitsis RN, Russell RG, Weiss LM, Tang B, Jelicks LA, Factor SM, Shtutin V, Tanowitz HB, Lisanti MP: Caveolin-1 null mice develop cardiac hypertrophy with hyperactivation of p42/44 MAP kinase in cardiac fibroblasts. *Am J Physiol Cell Physiol* 284:C457-C474,

Stephen M. Factor, M.D.

2003

254. Lee P, Sata M, DeFer DJ, Factor SM, Walsh K, Kitsis RN: Fas pathway is a critical mediator of cardiac myocyte death and MI during ischemia-reperfusion in vivo. *Am J Physiol Heart Circ Physiol* 284:H456-H463, 2003
255. Schubert W, Yang XY, Yang TTC, Factor SM, Lisanti MP, Molkentin JD, Rincon M, Chow C-W: Requirement of transcription factor NFAT in developing myocardium. *J Cell Biol* 161:861-874, 2003
256. Wencker D, Chandra M, Nguyen K, Miao W, Garantziotis S, Factor SM, Shirani J, Armstrong RC, Kitsis RN: A mechanistic role for cardiac myocyte apoptosis in heart failure. *J Clin Invest* 111:1497-1504, 2003
257. Tarzami ST, Miao W, Mani K, Lopez L, Factor SM, Berman JW, Kitsis RN: Opposing effects mediated by the chemokine receptor, CXCR2, on myocardial ischemia-reperfusion injury: recruitment of potentially damaging neutrophils and direct myocardial protection. *Circulation* 108:2387-2392, 2003
258. Park DS, Cohen AW, Frank PG, Razani B, Lee H, Williams TM, Chandra M, Shirani J, Souza AP, Tang B, Jelicks LA, Factor SM, Weiss LM, Tanowitz HB, Lisanti MP: Caveolin-1 null (-/-) mice show dramatic reductions in life span. *Biochemistry* 42(51):15124-15131, 2003
259. Woodman SE, Cheung MW-C, Tarr M, North AC, Schubert W, Lagaud G, Marks CB, Russell RG, Hassan GS, Factor SM, Christ GJ, Lisanti MP: Urogenital alterations in aged male caveolin-1 knockout mice. *J. Urol* 171(2 Pt 1):950-957, 2004
260. DeSouza AP, Tanowitz HB, Chandra M, Shtutin V, Weiss LM, Morris SA, Factor SM, Huang H, Wittner M, Shirani J, Jelicks LA: Effects of early and late verapamil administration on the development of cardiomyopathy in experimental chronic *Trypanosoma cruzi* (Brazil strain) infection. *Parasitol Res* 92(6):496-501, 2004
261. Akkerman A, Huang W, Wang X, Ramanujam M, Schiffer L, Maidaio M, Factor SM, Davidson A: CTLA4lg prevents initiation but not evolution of anti-phospholipid syndrome in NZW/BXSB mice. *Autoimmunity* 37 (6-7):445-451, 2004
262. Dembitsky WP, Tector AJ, Park S, et al. (SM Factor Member of Study Group): Left ventricular assist device performance with long-term circulatory support: lessons from the REMATCH trial. *Ann Thorac Surg* 78:2123-2130, 2004
263. Boczek J, Tar M, Melman A, Jelicks LA, Wittner M, Factor SM, Zhao D, Hafron J, Weiss LM, Tanowitz HB, Christ GJ: *Trypanosoma cruzi* infection induced changes in the innervation, structure and function of the murine bladder. *J Urol* 173:1784-1788, 2005

Stephen M. Factor, M.D.

264. Tanowitz HB, Huang H, Jelicks LA, Chandra M, Loreda ML, Weiss LM, Factor SM, Shtutin V, Mukherjee S, Kitsis RN, Christ GJ, Wittner M, Shirani J, Kisanuki YY, Yanagisawa M: Role of endothelin-1 in the pathogenesis of chronic chagasic heart disease. *Infect Immun* 73:2496-2503, 2005
265. Ertz-Berger BR, He H, Dowell C, Factor SM, Haim TE, Nunez S, Schwartz SD, Ingwall JS, Tardiff JC: Changes in the chemical and dynamic properties of cardiac troponin T cause discrete cardiomyopathies in transgenic mice. *Proc Natl Acad Sci, USA* 102:18219-18224, 2005
266. Combs TP, Nagajyothi, Mukherjee S, de Almeida CJ, Jelicks LA, Schubert W, Lin Y, Jayabalan DS, Zhao D, Braunstein VL, Landskroner-Eiger S, Cordero A, Factor SM, Weiss LM, Lisanti MP, Tanowitz HB, Scherer PE: The adipocyte as an important target cell for *Trypanosoma cruzi* infection. *J Biol Chem* 280:24085-24094, 2005
267. De Souza AP, Cohen AW, Park DS, Woodman SE, Tang B, Gutstein DE, Factor SM, Tanowitz HB, Lisanti MP, Jelicks LA: MR imaging of caveolin gene-specific alterations in right ventricular wall thickness. *Magn Reson Imaging* 23:61-68, 2005
268. Nagajyothi F, Desruisseaux M, Bouzahzah B, Weiss LM, Andrade Ddos S, Factor SM, Scherer PE, Albanese C, Lisanti MP, Tanowitz HB: Cyclin and caveolin expression in an acute model of murine Chagasic myocarditis. *Cell Cycle* 5(10):107-112, 2006
269. Bouzahzah B, Nagajyothi F, Desruisseaux MS, Krishnamachary M, Factor SM, Cohen AW, Lisanti MP, Petkova SB, Pestell RG, Wittner M, Mukherjee S, Weiss LM, Jelicks LA, Albanese C, Tanowitz HB: Cell cycle regulatory proteins in the liver in murine *Trypanosoma cruzi* infection. *Cell Cycle* 5(20):2396-2400, 2006
270. Patel MK, Factor SM, Wang J, Jana S, Strauch B: Limited myocardial muscle necrosis model allowing for evaluation of angiogenic treatment modalities. *J Reconstr Microsurg* 22(8):611-615, 2006
271. Yang XY, Yang TT, Schubert W, Factor SM, Chow CW: Dosage-dependent transcriptional regulation by the calcineurin/NFAT signaling in developing myocardium transition. *Dev Biol* 303(2):825-837, 2007
272. Ashton AW, Mukherjee S, Nagajyothi FN, Huang H, Braunstein VL, Desruisseaux MS, Factor SM, Lopez L, Berman JW, Wittner M, Scherer PE, Capra V, Coffman TM, Serhan CM, Gotlinger KK, Weiss L, Tanowitz HB: Thromboxane A₂ is a key regulator of pathogenesis during *Trypanosoma cruzi* infection. *J Exp Med* 204(4):929-940, 2007
273. Kahn P, Ramanujam M, Bethunaickan R, Huang W, Tao H, Madaio MP, Factor SM, Davidson A: Prevention of murine antiphospholipid syndrome by BAFF blockade. *Arthritis Rheum* 58:2824-2834, 2008
274. Solaymani-Mohammadi S, Coyle CM, Factor SM, Petri WA Jr: Amebic colitis in an

Stephen M. Factor, M.D.

antigenically and serologically negative patient: usefulness of a small-subunit ribosomal RNA gene-based polymerase chain reaction in diagnosis. *Diagn Microbiol Infect Dis* 62(3):333-335, 2008

275. Ny L, Li H, Mukherjee S, Persson K, Holmqvist B, Zhao D, Shtutin V, Huang H, Weiss LM, Machado FS, Factor SM, Chan J, Tanowitz HB, Jelicks LA: A magnetic resonance imaging study of intestinal dilation in *Trypanosoma cruzi*-infected mice deficient in nitric oxide synthase. *Am J Trop Med Hyg* 79:760-767, 2008
276. Tanowitz HB, Machado FS, Jelicks LA, Shirani J, Campos de Carvalho AC, Spray DC, Factor SM, Kirchoff LV, Weiss LM: Perspectives on *Trypanosoma cruzi*-induced heart disease (Chagas Disease). *Prog Cardiovasc Dis* 51(6):524-539, 2009
277. Ramanujam M, Kahn P, Huang W, Tao H, Madaio MP, Factor SM, Davidson A: Interferon-alpha treatment of female (NZW x BXSB)F(1) mice mimics some but not all features associated with the Yaa mutation. *Arthritis Rheum* 60(4):1096-1101, 2009
278. Dar P, Rosenthal J, Factor S, Dubiosso, R, Murthy AS: First-trimester diagnosis of fetal epignathus with 2- and 3-dimensional sonography. *J Ultrasound Med* 28:1743-1746, 2009
279. Nawrocki AR, Hofmann SM, Teupser D, Basford JE, Durand JL, Jelicks LA, Woo CW, Kuriakose G, Factor SM, Tanowitz HB, Hui DY, Tabas I, Scherer PE: Lack of association between adiponectin levels and atherosclerosis in mice. *Arterioscler Thromb Vasc Biol* 30(6):1159-1165, 2010
280. Nagajyothi F, Zhao D, Machado FS, Weiss LM, Schwartz GJ, Desruisseaux MS, Zhao Y, Factor SM, Huang H, Albanese C, Teixeira MM, Scherer PE, Chua C Jr, Tanowitz HB: Crucial role of the central leptin receptor in murine *Trypanosoma cruzi* infection. *J Infect Dis* 2002(7), 2010
281. Mukherjee S, Machado FS, Huang H, Oz HS, Jelicks LA, Prado CM, Koba W, Fine EJ, Zhao D, Factor SM, Collado JE, Weiss LM, Tanowitz HB, Ashton AW: Aspirin treatment of mice infected with *Trypanosoma cruzi* and implications for the pathogenesis of Chagas Disease. *PLoS ONE* 6 (Issue 2), 2011

BOOKS:

Factor SM, Lamberti-Abadi MA, Abadi J: *Handbook of Pathology and Pathophysiology of Cardiovascular Disease*. Kluwer Academic Publishers, Boston, 2002.

ABSTRACTS:

1. Factor SM, Sonnenblick EH, Kirk ES: Histological border zone of acute myocardial infarction: Islands or peninsulas? *Circulation* 56(suppl III):71, 1977

Stephen M. Factor, M.D.

2. Factor SM, Yoran C, Sonnenblick EH, Kirk ES: Calcium and 99m Tc pyrophosphate localization in the border zone of canine myocardial infarcts. *Circulation* 56(suppl III):138, 1977
3. Goldfischer S, Factor SM, Biempica L: Thesaurosclerosis: Vascular disease in Morquio's syndrome. *Fed Proc* 37:801, 1978
4. Minase T, Factor SM, Sonnenblick EH: Clinical and morphological features of human hypertensive- diabetic cardiomyopathy. *Fed Proc* 37:900, 1978
5. Factor SM, Bhan R, Minase T, Wolinsky H, Sonnenblick EH: Morphologic features of hypertensive- diabetic cardiomyopathy in the rat. *Fed Proc* 37:498, 1978
6. Bhan R, Factor SM, Minase T, Wolinsky H, Sonnenblick EH: Ultrastructural features of hypertensive-diabetic cardiomyopathy in the rat. *Fed Proc* 37:489, 1978
7. Ongseng F, Chervu LR, Kogan SJ, Factor SM, Blafox MD: Testicular imaging with Tl-201. *Society of Nuclear Medicine, 25th Annual Meeting*, 1978
8. Okun E, Factor SM, Kirk ES: The histological border of myocardial infarction. A function of microcirculation. *Fed Proc* 38:1209, 1979
9. Factor SM, Okun EM, Kirk ES: Microextension of acute myocardial necrosis into the normal zone of 7 day canine infarcts. *Circulation* 60(suppl II):114, 1979
10. Okun EM, Factor SM, Kirk ES: End-capillary loops in the heart: An explanation for discrete myocardial infarction without border zones. *Circulation* 60(suppl II):394, 1979
11. Factor SM, Minase T, Okun EM, Herskowitz A, Sonnenblick EH: Coronary microvascular spasm in the cardiomyopathic Syrian hamster: A primary case of focal cell necrosis? *Circulation* 62(suppl III):254, 1980
12. Factor SM, Minase T, Sonnenblick EH: Microvascular abnormalities in the hypertensive-diabetic rat heart. *Circulation* 62(suppl III):247, 1980
13. Robinson TF, Factor SM, Sonnenblick EH: The skeletal framework of the heart: The hierarchical arrangement of inter-and peri- cellular connections. *Circulation* 62(suppl III):247, 1980
14. Forman R, Factor SM, Kirk ES: Temporary preservation of ischemic subendocardial tissue in region at risk. *Circulation* 62(suppl III):242, 1980
15. Factor SM, Cho S, Sonnenblick EH: Verapamil treatment of the cardiomyopathic Syrian hamster: Effects on the microcirculation and the extent of myocardial necrosis. *Fed Proc*

Stephen M. Factor, M.D.

40:758, 1981

16. Cho S, Factor SM, Sternlieb I, Scheinberg IH, Goldfischer S: The cardiomyopathy of Wilson's disease: myocardial alterations in seven cases. *Fed Proc* 40:752, 1981
17. Factor SM, Okun EM, Minase T, Kirk ES: The microcirculation of the human heart: end-capillary loops with discrete perfusion fields. *Circulation* 64(suppl IV):139, 1981
18. Cho S, Factor SM, Eng C, Kirk ES: Enhanced vulnerability of midwall myocardium to focal necrosis following microsphere embolization. *Circulation* 64(suppl IV):266, 1981
19. Eng C, Factor SM, Cho S, Kirk ES: Myocardial micronecrosis due to microsphere embolization: mediation by an alpha adrenergic mechanism. *Circulation* 64(suppl IV):232, 1981
20. Factor SM, Sonnenblick EH: Coronary microvascular spasm: a possible cause of focal myocardial necrosis and congestive cardiomyopathy. *Fed Proc* 4:446, 1982
21. Kirk ES, Eng C, Cho S, Factor SM: Myocardium at risk: the micro-circulatory unit. *Fed Proc* 41:1762, 1982
22. Levitt B, Factor SM, Somberg JC: Digitoxin blockade of adriamycin cardiotoxicity in the rabbit. *Am J Cardiol* 49:985, 1982
23. Factor SM, Cho S, Kirk ES: Non-specificity of triphenyl tetrazolium chloride for the gross diagnosis of acute myocardial infarction. *Circulation* 66(suppl II):84, 1982
24. Kirk ES, Eng C, Cho S, Factor SM: Failure to demonstrate salvage of myocardium at 6 hours with ibuprofen using triphenyl tetrazolium chloride. *Circulation* 66(suppl II):84, 1982
25. Strain J, Grose R, Factor S, Matos J, Kim S, Fisher J: Clinically normal patients with spontaneous ventricular tachycardia: endomyocardial biopsy results. *Circulation* 66(suppl II):343, 1982
26. Factor SM, Cho S: Alpha adrenergic blockade of the cardiomyopathic Syrian hamster: further evidence for the microvascular etiology of micronecrosis. *Fed Proc* 42:920, 1983
27. Strain JE, Grose RM, Hirsch CL, Kramer DC, Cho S, Factor SM: Atypical presentation of myocarditis. *Circulation* 68(suppl III):27, 1983
28. Strain JE, Fine EJ, Grose RM, Kramer DC, Cho S, Factor SM: Comparison of myocardial biopsy and gallium-67 imaging for diagnosing myocarditis. *Circulation* 68(suppl III):208, 1983
29. Robinson TF, Cohen-Gould L, Factor SM: Hierarchical arrangement of inter- and

Stephen M. Factor, M.D.

pericellular connective tissue structures in heart muscle. *Biophys J* 41:97A, 1983

30. Robinson TF, Factor SM, Sonnenblick EH, Cohen-Gould L, Remily R, Capasso JM: Function of epimysial collagen fibers in cardiac muscle: structural-functional correlations. *J Mol Cell Cardiol* 15:37, 1983
31. Robinson TF, Factor SM, Cohen-Gould L, Capasso JM: Structure and function of epimysial collagen fibers in heart muscle. *Biophys J* 45(2):105A, 1984
32. Strain JE, Grose RM, Hirsch CL, Kramer DC, Cho S, Factor SM: Discordance of clinical and histological response to therapy in chronic myocarditis. *J Am Coll Cardiol* 3:520, 1984
33. Robinson TF, Cohen-Gould L, Factor SM: Epimysial collagen fibers in heart muscle: structure-function. *Anat Rec* 208:149A, 1984
34. Strain JE, Keefe DL, Grose RM, Cho S, Factor SM: Coronary vasculitis diagnosed by endomyocardial biopsy. *Circulation* 70(suppl II):150, 1984
35. Biempica L, Factor S, Cho S, Goldfischer S: Correlation between histological changes and microvascular abnormalities demonstrated by silicone rubber perfusion in alcoholic cirrhosis. *Hepatology* 4:1073, 1984
36. Robinson T, Factor S, Schwartz E, Capasso J, Cohen-Gould L, Blumenfeld O: Collagen struts of mammalian heart muscle: structure and function. *J Mol Cell Cardiol* 16(suppl I):1984
37. Factor SM, Robinson TF, Cho S: Alterations of the myocardial skeletal framework in acute experimental and clinical infarction with and without ventricular rupture. *J Am Coll Cardiol* 5:401, 1985
38. Vetter HO, Tamura K, Factor SM, Frater RWM: Materials for cusp substitution in valvular surgery: An experimental investigation. Presented at the Society of Thoracic Surgeons 22nd Annual Meeting, Washington, D.C., 1985
39. Conway RS, Factor SM, Baez S: Increased sensitivity of myopathic hamster arterioles to norepinephrine. *Fed Proc* 45:409, 1986
40. Strain J, Grose R, Factor S, Norin A: Human myocarditis: an autoimmune disease involving cytolytic lymphocytes? *Fed Proc* 45:491, 1986
41. Bortolotti U, Zussa C, Factor S, Frater RWM: Glutaraldehyde treated auto, homo and xenograft pericardium in atrial, mitral, aortic and pericardial applications. Presented at the European Society for Artificial Organs, Avignon France, September, 1986

Stephen M. Factor, M.D.

42. Vetter HO, Factor SM, Frater RWM: The use of glycerol-treated homologous pericardium as a substitute for chordae tendineae of the mitral valve in sheep. Presented at the 15th Annual Meeting of the German Society for Thoracic and Cardiovascular Surgery, 1986
43. Bortolotti U, Zussa C, Factor S, Frater R: Glutaraldehyde treated auto, homo, and xenograft pericardium in atrial, mitral, aortic, and pericardial applications. XIII Annual Meeting, Life Support Systems, Avignon, France, September, 1986
44. Buttrick P, Malhotra A, Factor S, Geenen D, Scheuer J: The effects of chronic dobutamine treatment on the normotensive and hypertensive heart. *J Am Coll Cardiol* 9:37A, 1987
45. Rose AG, Novitzky D, Factor SM: Spasm-induced smooth muscle contraction bands in the media of coronary arteries: an experimental study in baboons. *Lab Invest* 56:66A, 1987
46. Factor SM, Fein F, Cho S: The coronary microcirculation in clinical and experimental diabetic heart disease. *J Mol Cell Cardiol* 19(suppl III):S21, 1987
47. Dahm M, Lyman WD, Factor SM, Eghbali M, Schwell AB, Frater RWM: Immunogenicity of glutaraldehyde-tanned bovine pericardial xenografts. *J. Mol Cell Cardiol* 19(suppl IV):S81, 1987
48. Flomenbaum M, Zhao M-J, Robinson TF, Factor SM: Effects of increased ventricular cavity pressure on intrinsic myocardial connective tissue and myocytes. Presented at the 2nd Scientific Session of the Society for Cardiovascular Pathology, Anaheim, CA, November 15, 1987
49. Factor SM, Cho S, Conway R, Forman R, Eng C: The relationship of the coronary microcirculation to myocardial microcirculation and infarction. Presented at the Fourth World Congress for Microcirculation, Tokyo, Japan, July, 1987
50. Factor SM, Cho S, Minase T, Capasso JM, Fein F: Coronary microvascular abnormalities in the diabetic heart. Presented at the Satellite Conference of the Fourth World Congress for Microcirculation, Osaka, Japan, July 1987
51. Factor SM, Cho S, Scheuer J, Sonnenblick EH, Malhotra A: Prevention of hereditary cardiomyopathy in the Syrian hamster with chronic verapamil therapy. *J Mol Cell Cardiol* 20 (suppl V):581, 1988
52. Factor SM, Flomenbaum M, Udem SA, Kress Y, Soiero R: Proliferative membranopathy and human immunodeficiency virus in AIDS hearts. *Circulation* 78(suppl II):535, 1988
53. Factor SM, Butany J, Sole MJ, Wigle ED, Rojkind M: Matrix and scar-type connective tissue in the subaortic myocardium of patients with hypertrophic cardiomyopathy.

Stephen M. Factor, M.D.

Presented at the 3rd Annual Scientific Session of the Society for Cardiovascular Pathology, Washington, D.C., November, 1988

54. Cho S, Morin L, Issenberg HL, Morecki R, Factor SM: Cardiac lesions in children with acquired immune deficiency syndrome. *Lab Invest* 60:16A, 1989
55. Cho S, Matano S, Factor SM: Cardiac lesions in 118 autopsied acquired immune deficiency syndrome patients: intravenous drug abusers vs homosexuals. *Lab Invest* 60:17A, 1989
56. Zhao M, Forman R, Sonnenblick EH, Zhang H, Charney RH, Factor SM, Eng C: Pressure-sarcomere length relationship in the stunned myocardium. *Circulation* 80(suppl II):97, 1989
57. Charney RH, Takahashi S, Zhao M, Sonnenblick EH, Factor SM, Eng C: Collagen loss in the stunned myocardium. *Circulation* 80(Suppl II):99, 1989
58. Zhao M, Forman R, Sonnenblick EH, Zhang H, Charney RH, Factor SM, Eng C: Sarcomere misregistration in the stunned myocardium: evidence for intracellular slippage. *Circulation* 80 (suppl II):513, 1989
59. Factor SM, van Hoeven KH, Cho S, Fein FS: Microangiopathy and focal myocardial injury: their role in the development of diabetic cardiomyopathy. Presented at the International Symposium on the Diabetic Heart, Tokyo, Japan, October, 1989
60. Factor SM, Rojkind M, McNamara T: Cardiac connective tissue matrix in the giraffe heart: a model of physiologic hypertrophy. Presented at the 4th Annual Scientific Session of the Society for Cardiovascular Pathology, New Orleans, LA, November, 1989
61. Factor SM, Sonnenblick EH, Chadwick RS: The effects of the myocardial connective tissue matrix on cardiac mechanics: anatomy-phylogeny-theoretical physics. Presented at NIH Conference on Modeling in Biomedical Research, Bethesda, Maryland, May, 1989
62. van Hoeven K, Factor SM: A comparison of the pathological spectrum of hypertensive, diabetic, and hypertensive-diabetic heart disease. *Lab Invest* 62:103A, 1990
63. van Hoeven K, Segal B, Factor SM: Comparison of cardiac pathology in acquired immunodeficiency syndrome among patients with and without other cardiac risk factors. *Lab Invest* 62:103A, 1990
64. Ventura MC, Factor SM, Wittner M, Tanowitz H, Rojkind M: Gelatinase and collagenase activity in *Trypanosoma cruzi*. *FASEB J* 4:A343, 1990
65. Lonn E, Wer WH, Factor S, van Hoeven KH, Dawood F, Liu P: Effect of oxygen free radicals and scavengers on collagen content during ischemia-reperfusion. Presented to

Stephen M. Factor, M.D.

Canadian Cardiovascular Society, Halifax, NS, October, 1990

66. Carnavale K, Cajigas A, Factor S, Steinberg JJ: A morphometric evaluation of islets of Langerhans in normal elderly and disease matched diabetes. *Diabetes* 39:173A, 1990
67. Calderon TM, Yao L, Factor SM, Brosnan CF, Hatcher VB, Berman JW: Cytokine induction of a monocyte adhesion protein on human endothelial cells. *Circulation* 82(suppl III): 94, 1990
68. Chalifour LE, Gomes ML, Wang N-S, Mes-Masson A-M, Factor, SM: Cardiomyopathy in polyomavirus large T-antigen transgenic mice. *Circulation* 82(suppl III):290, 1990
69. Factor SM, Wittner, M, Tanowitz, H, Ventura MC, Rojkind M: Collagen matrix damage and *Trypanosoma cruzi* induced collagenolysis in murine Chagas' disease. *Circulation* 82 (suppl III): 291, 1990
70. Lonn E, Factor SM, Wen W-H, van Hoeven, KH, Dawood F, Liu P: effect of oxygen free radicals and scavengers on myocardial collagen during ischemia-reperfusion. *Circulation* 82(suppl III):298, 1990
71. Cho S, Lee KB, Park CG, Choi IJ, Factor SM: Effects of nifedipine, reserpine, prazosin, and phenoxybenzamine in cardiomyopathic Syrian hamsters. *Lab Invest* 64:17A, 1991
72. Pirofski L, Horwitz MS, Scharff MDS, Factor SM: Mouse adenovirus type 1 induces Reye-like lesions in the livers of SCID mice. *Lab Invest* 64:89A, 1991
73. Factor SM, Cho S, Kress, Y, Menegus M, Reyes A, Sakai L, Goldfischer S: Microfibrillar cardiomyopathy: a new entity resembling cardiac amyloidosis. *Lab Invest* 64:74A, 1991
74. van Hoeven K, Kitsis RN, Katz SD, Factor SM: Peripartum versus idiopathic dilated cardiomyopathy in young woman: a comparison. *Lab Invest* 64:22A, 1991
75. Cho S, Shin DW, Chung SH, Kim SY, Choi IJ, Factor SM: Aspirin and verapamil reduce monocrotaline induced pulmonary hypertension in the rat. *Am Rev Respir Dis* 143:A187, 1991
76. Cho S, Shin DW, Chung SH, Kim SY, Choi IJ, Factor SM: Platelet aggregation and vasoreactivity in monocrotaline induced pulmonary hypertension. *Am Rev Respir Dis* 143:A187, 1991
77. Cho S, Issenberg H, Factor SM: Endomyocardial biopsy diagnosis of myocarditis in children: safe and useful. *Lab Invest* 64:107A, 1991
78. Calderon TM, Yao L, Brosnan CF, Hatcher VB, Factor SM, Berman JW: A cytokine induced human endothelial cell-monocyte adhesion molecule expressed in vessels with atherosclerotic lesions. *FASEB J* 5:A1438, 1991

Stephen M. Factor, M.D.

79. Fabry ME, Constantini F, Pachnis A, Hofrichter J, Christoph GW, Factor S, Nagel RL: A transgenic mouse line expressing a high level of HbS. *Clin Res* 39(2):276a, 1991
80. Calderon TM, Yao L, Cuff CA, Hatcher VB, Factor SM, Berman JW: Cell surface expression of a monocyte adhesion protein on cytokine-activated human endothelial cells and atherosclerotic human and Watanabe rabbit coronary vessels. *J Cell Biochem (suppl 16A)*:10, 1992
81. van Hoeven KH, Matano S, Hochster H, Anyaegbunam A, Witty JE, Factor SM: Acute chorioamnionitis with funisitis: A clinicopathologic study. *Lab Invest* 66:111A, 1992
82. Segal B, Factor SM: Myocardial risk factors contribute to cardio- myopathy in AIDS patients. *Lab Invest* 66:23A, 1992
83. Fabry ME, Costantini F, Pachnis A, Band N, Aynedjian HS, Factor SM, Nagel RL: Organ damage in transgenic mice with high expression of hemoglobin S. *Clin Res* 40(2):212a, 1992
84. Zhao M, Sonnenblick EH, Zhang H, Factor SM, Eng C: Cytoskeletal alterations in the stunned myocardium. *FASEB J* 6:A1245, 1992
85. Factor SM: The pathogenesis of cardiomyopathy in the Syrian hamster: Abnormalities of the microcirculation and the myocardial connective tissue matrix. *J Mol Cell Cardiol* 24(suppl II):S433, 1992
86. Fabry ME, Constantini F, Pahnis A, Band N, Aynedjian H, Factor S, Nagel RL: High expression of β^s and human β in transgenic mice: Organ Pathology. Annual Meeting of the National Sickle Cell Disease Program, March 14-18, 1992
87. Factor SM, Cho S: Plexogenic pulmonary arteriopathy: 3- dimensional casts and serial sections reveal pseudoaneurysms, spasm, and hypoperfusion. *Lab Invest* 68:22A, 1993
88. Edwards JG, Smith CK, Santerre RF, Bales K, Gardin J. Factor SM, Leinwand LA: Cardiomyopathy in transgenic Myf5 mice. Presented at the Scientific Conference on the Molecular Biology of the Normal, Hypertrophied, and Failing Heart. August, 1993
89. Aretz HT, Billingham ME, Edwards WD, Factor SM, Fallon JT, Hammond EH, McManus BM, Schoen FJ (The NIH Multicenter Myocarditis Treatment Trial Panel): The utility of the Dallas criteria for the histopathological diagnosis of myocarditis in endomyocardial biopsy specimens. *Circulation* 88:552, 1993
90. d'Amati G, Factor SM: Endomyocardial biopsy findings in patients with ventricular arrhythmias of unknown origin. *Lab Invest* 70:27A, 1994
91. Liu S-K, Chiu Y-T, Fox PR, Factor SM, Shyu J-J, Chu R: Interstitial connective tissue

Stephen M. Factor, M.D.

- abnormalities in feline cardiomyopathies. *Lab Invest* 70:29A, 1994
92. Liu S-K, Chiu Y-T, Shyu J-J, Factor SM, Chu R, Lin J-H, Tsau H-L: Hypertrophic cardiomyopathy in pigs. *Lab Invest* 70:29A, 1994
 93. Tanaka K, Dever L, Factor S, Wright S, Tomasz A: Anti-CD18 antibody prevents polymorphonuclear cell (PMN) diapedesis but not margination induced by pneumococcal (PN) cell wall (CW) in the rabbit model of meningitis. *Lab Invest* 70:145A, 1994
 94. Kosierkiewicz T, Factor SM, Cho S, Steinberg JJ: The autopsy in the elderly surgical patient: Risk management quality assurance in the hospital setting. *Lab Invest* 70:164A, 1994
 95. Steinberg JJ, Winiarsky R, Savala E, DeSalle L, St. Pre M, Moosikasuan M, Cajigas A, Chang TH, Factor SM, Levenson SM: DNA biomarkers antecede semiquantitative anthracycline cardiomyopathy. *Lab Invest* 70:31A, 1994
 96. Rao RS, Factor SM, Menegus MA, Monrad ES, Sherry B, Greenberg MA, Berman JW: Increased expression of chemokine-beta proteins in human retentive coronary artery lesions following angioplasty. *J Am Coll Cardiol suppl*:123A, 1994
 97. Vikstrom KL, Factor SM, Leinwand LA: Transgenic mouse model for familial hypertrophic cardiomyopathy. *Circulation*, 1995
 98. Edwards J, Sclais S, Lyons, Malhotra A, Smith C, Santerre R, Bales K, Factor S, Leinwand L: Cardiomyopathy in transgenic Myf5 mice. *Circulation*, 1995
 99. Borczuk A, Berman JW, Factor SM: Correlation of endothelin immunoreactivity in human kidney with acute renal failure. *Lab Invest* 72:158A, 1995
 100. Pathak A, Weber KL, Moses JW, Monrad ES, Lerrick K, Monrad S, Menegus M, Factor SM, Berman JW: Role of chemokine beta proteins in the development of unstable plaques in coronary atherosclerosis. *FASEB J* 9:A321, 1995
 101. Weber KJ, Pathak A, Moses JW, Cohen NT, Higgins JE, Monrad S, Menegus M, Greenberg M, Factor SM, Berman JW: Induction of monocyte chemoattractant protein-1 and its role in the development of unstable coronary atherosclerotic plaques. *Circulation* 92(suppl1):160, 1995
 102. Factor SM, Sonnenblick EH: Myocardial alterations in diabetes and hypertension. *J Mol Cell Cardiol* 27:A422, 1995
 103. Borczuk AC, Markowitz GS, Concepcion L, Factor SM: Bronx AIDS: cardiac involvement by infections and malignancies. *Lab Invest* 74:27A, 1996

Stephen M. Factor, M.D.

104. Borczuk AC, Niedt G, Sabley LB, Kress Y, Mannion CM, Factor SM, Tanaka KE: Fibrous long-spaced collagen (FLSC) in bacillary angiomatosis. *Lab Invest* 74:128A, 1996
105. Concepcion L, Markowitz GS, Borczuk AC, Factor SM: Comparison of changing autopsy trends in the Bronx AIDS population. *Lab Invest* 74:129A, 1996
106. Markowitz GS, Concepcion L, Factor SM, Borczuk AC: AIDS in the Bronx: an autopsy study of risk factors and AIDS defining diagnoses. *Lab Invest* 74:130A, 1996
107. Costello P, Markowitz GS, Factor SM, Borczuk AC: Patterns of pulmonary cytomegalovirus (CMV) infection in AIDS and correlation with systemic disease. *Lab Invest* 74:154A, 1996
108. Yao L, Lowy FD, Factor SM, Berman JW: Cytokine gene expression in an experimental animal model of bacteremic staphylococcus aureus infection. *FASEB J*, 1996
109. Huang H, Wittner M, Chan J, Weiss LM, Morris SA, Yarlett N, Martinez M, Braunstein V, Factor SM, Tanowitz HB: Inducible nitric oxide synthase expression in the myocardium of *Trypanosoma cruzi* infected mice. 45th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Baltimore, MD, 1996
110. Tardiff JC, Factor SM, Hewett TE, Robbins J, Leinwand LA: Expression of a mutant CtnT molecule implicated in familial hypertrophic cardiomyopathy results in widespread ventricular remodeling in transgenic mice. *Circulation* 96(suppl I), 1997
111. Wickender AD, Huang Q, Factor SM, Backx PH, Fishman GI: Expression of a dominant-negative Kv4.2 channel in the hearts of transgenic mice. *Circulation* 96(suppl I):422, 1997
112. Welikson RE, Vikstrom KL, Factor SM, Weinberger HD, Leinwand LA: Heavy chains lacking the light chain binding domain cause genetically dominant cardiomyopathy in mice. *Circulation* 96 (suppl I):571, 1997
113. Tardiff J, Nakao K, Bristow M, Factor S, Hewett T, Robbins J, Leinwand L: Myosin gene expression in heart failure. Presented at the Steamboat Springs Heart Meeting, 1998
114. Tardiff JC, Hewett TE, Factor SM, Robbins J, Leinwand LA: Expression of the fetal isoform of MyHC in the adult mouse heart causes dominant-negative effects. *Circulation* 98(suppl I): 467, 1998
115. Wencker D, Khine CC, Chandra M, Garantzioti S, Ng K, Factor SM, Shirani J, Kitsis RN: Myocyte apoptosis is sufficient to cause dilated cardiomyopathy. *Circulation* 100(suppl I), 1999
116. Wencker D, Chandra M, Armstrong RC, Garantziotis S, Factor SM, Shirani J, Kitsis RN: Rescue of dilated cardiomyopathy by capase inhibition in FkBP-capase-8-transgenic mice.

Stephen M. Factor, M.D.

Circulation 102(Supp): 1-8, 2000

117. Ertz-Berger BL, Doan TM, Jewett TE, Factor SM, Robbins J, Tardiff JC: Single amino acid substitutions at codon 92 of the cardiac troponin T gene exhibit distinct cardiovascular phenotypes in transgenic mice. Circulation 102(Supp II):217, 2000
118. Peng C-F, Lee P, Deguzman A, Miao W, Chandra M, Shirani J, Factor S, et al: Multiple independent mutations in apoptotic signaling pathways markedly decrease infarct size due to myocardial ischemia-reperfusion. Circulation 104(Supp II):187, 2001
119. Ertz-Berger B, Hewett TE, Dowell C, Factor SM, Robbins J, Tardiff JC: Independent mutations in the tropomyosin binding domain of cardiac TNT exhibit allele-specific phenotypes in transgenic mice. Circulation 106(Suppl II):205-206, 2002

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